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BASIC INTERPRETIVE QUALITATIVE STUDY ON UNDERSTANDING PERCEPTION OF CLINICANS IN EKURHULENI HEALTH DISTRICT, GAUTENG PROVINCE, REGARDING NATURAL FAMILY PLANNING AS AN OPTION IN REPRODUCTIVE HEALTH CARE)

Nombre: Dr Ozoemena J. Ibeziako

Dirigido por: D.^a Tania Errasti Alcalá

University of Navarre
INSTITUTE OF SCIENCES FOR FAMILY

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CLINICANS IN EKURHULENI HEALTH DISTRICT, GAUTENG PROVINCE, REGARDING NATURAL
FAMILY PLANNING AS AN OPTION IN REPRODUCTIVE HEALTH CARE***

Submitted in partial fulfilment of the requirements for Master degree in Marriage and Family (MMF) at the
Institute of Sciences for family, University of Navarre, Pamplona, Spain

Student: Dr O.J.Ibeziako (no. 351946)

Supervisor: Prof. Tania Errasti Alcalá, Obstetrician & Gynaecologist, *Clinica Universidad de Navarre*,
Pamplona Spain

Date Submitted: 31 August 2018

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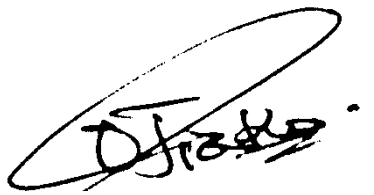
Supervisor: Prof. Tania Errasti Alcalá

Signature of supervisor: _____

Date: _____

DECLARATION

I hereby declare that this is an original work done by me. It has been submitted as part of fulfilment of Master degree in Marriage and Family at the Institute of Sciences for Family, University of Navarre, Pamplona, Spain. It has not been submitted before for any other degree in any university.

A handwritten signature in black ink, appearing to read 'Dr. Ozoemena Joan Ibeziako', enclosed within a large, loopy oval stroke.

Dr Ozoemena Joan Ibeziako

Date: 31 August 2018

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I would like to acknowledge the unrelenting support of my numerous friends in Pretoria, with whom I have engaged in several dialogues and exchanges of views and impressions, which have shaped the genesis and development of this project.

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Most of all, I cannot end without raising my heart in thanksgiving to God Almighty, whose grace has been my constant inspiration and strength throughout these two years of intensive studies which entailed course work and research project.

ABSTRACT

INTRODUCTION: Natural Family Planning (NFP) is not a contraceptive method but fertility awareness. It empowers women through education, charting and interpretive skills towards self-knowledge, health reasons and family planning purposes, to be in control of their reproductive health. Substantive literature supports its comparative effectiveness with contraceptive methods but remains a myth to both clinicians and health care users. The aim of the study was to understand perception of clinicians regarding offering NFP to patients as part of reproductive health care.

METHODS: Basic Interpretive qualitative study has been utilized as the appropriate research design in order to obtain an in-depth description of this lived phenomenon. Fifteen participants, doctors and nurses, from diverse cultural and educational background were interviewed. Transcribed data were analysed identifying recurrent themes through categorization.

RESULTS: Participant characteristics did not seem to influence their perception regarding NFP. Participants had no knowledge of modern and traditional NFP methods and their knowledge of types of NFP methods was confusing. The need to bridge knowledge gap - mechanism of action of NFP and effectiveness -, competency and preparedness to render holistic reproductive health care were motivators. Being empowered would change negative attitudes, beliefs and practices in favour of NFP. Further, inclusion of NFP as policy and its advocacy would enhance reception by both clinicians and health care users.

CONCLUSION AND RECOMMENDATIONS: Policy, effectiveness and professional culture emerged as major overarching themes influencing participants to choose NFP or not as an option for a woman's reproductive health care. Underlying these themes is the need for training, empowerment, competency among clinicians in order to offer holistic approach to reproductive health care. Early education of both male and female children would prepare responsive and sexually responsible adults. There is a need to match policy with advocacy in order to attain national goals. Medical and nursing professional board should work towards an all-inclusive curricula in order to meet desired health needs of its population.

RESUMEN

INTRODUCCIÓN: La planificación familiar natural (PFN) no es un método contraceptivo sino un reconocimiento de la fertilidad. Capacita a las mujeres a través del aprendizaje y la adquisición de habilidades y monitorizando su salud reproductiva, para conocer su propio cuerpo, su salud y para su planificación familiar. La literatura específica apoya su efectividad en comparación con la de los métodos artificiales, pero sigue siendo un mito tanto para los profesionales de la salud como para los usuarios de los servicios de salud. El objetivo del estudio fue comprender las percepciones de los profesionales de la salud en relación con ofrecer PFN a las pacientes como parte del cuidado de su salud reproductiva.

MÉTODOS: Para obtener una descripción profunda de esta vivencia se ha utilizado como diseño de investigación un estudio de interpretación cualitativa básica. Se interrogaron 15 participantes, médicos y enfermeras, de origen cultural y educativo diverso. Se analizó el contenido de las entrevistas, identificando temas repetitivos después de su categorización.

RESULTADOS: Las características de los participantes no parece que influyeron en sus percepciones en relación con la PFN. Los participantes no conocían los métodos de PFN modernos y tradicionales, y su conocimiento sobre los diversos tipos de métodos era confuso. La necesidad de solventar las deficiencias de conocimiento - mecanismos de acción de los métodos de PFN y su efectividad -, y la capacidad y preparación para prestar servicios integrales de salud reproductiva resultaron un estímulo. Una preparación adecuada cambiaría las actitudes negativas, las creencias y la práctica a favor de los métodos de PFN. Además, la inclusión de la PFN como política y su promoción mejoraría su recepción por parte de los profesionales de la salud y de los usuarios.

CONCLUSIÓN Y RECOMENDACIONES: La política, la efectividad y la cultura profesional destacaron como los principales argumentos que influyen en los participantes en la elección o no de la PFN como una opción para la atención de la salud reproductiva de la mujer. La necesidad de entrenamiento práctico, la cualificación y la competencia entre los profesionales de la salud para ofrecer un abordaje integral de la salud reproductiva subyacen a los argumentos previos. La educación temprana tanto de las chicas como de los chicos proveería adultos receptivos y sexualmente responsables. Es necesario combinar la política con la promoción para alcanzar los objetivos nacionales. El consejo médico y de enfermería debería trabajar hacia un plan de estudios integral con el fin de satisfacer las necesidades de salud deseadas por su población.

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CHAPTER ONE: INTRODUCTION AND RATIONALE

1.1 INTRODUCTION

Natural Family Planning (NFP), sometimes known as Periodic Abstinence (PA) or Fertility Awareness Based Methods (FABM) are terminologies used interchangeably in scientific literature. These methods, which utilize biological markers to identify a woman's fertile phase in her menstrual cycle in order to attain the desired number, spacing and timing of children, as well as achieving pregnancy, has comparable effectiveness as artificial contraceptives,¹ but has been misconstrued over the years. This is usually due to wrongly perceived ineffectiveness or low effectiveness.¹ This misconception has been associated with several factors such as incorrect use; perceived lack of scientific foundation; old fashioned and inappropriate in addressing the needs of this contemporary period; difficult to learn and practice periodic abstinence demanded by the method, due to lifestyle behaviour of users. Clinicians mostly do not advocate for this method partly because of incomplete or scientifically inaccurate knowledge of the methods, as well as insufficient preparation to provide comprehensive information to potential users. Besides, most clinicians are knowledgeable only about the old methods of NFP.^{1, 2, 3}

FABM include older traditional methods - Calendar (Rhythm, Standard days method) and Basal Body Temperature (BBT) methods - as well as modern NFP methods which use single check (observation of cervical mucus) or double check signs and symptoms (cervical mucus, BBT and calculation). The single check methods include Billings Ovulation method, Creighton Model System and Two Day methods while Symptothermal method is based on double check signs and symptoms. The rhythm method was the first FABM introduced in the 1920s.⁴ Over the last years, there has been a plethora of published evidence-based information on the hormonal foundation of modern NFP methods, through laboratory investigations and clinical observations.^{1-2, 5} Modern NFP or FABM are simply a scientific progression, a step forward, from the calendar rhythm method which is now obsolete, to symptoms based fertility awareness.

In recent years, interest in FABM is increasing due to the green movement, ecologism. They pose no side effects for the fertility of the woman and her health in general.¹ Some published reports have shown that over 100 million women use oral contraceptive pills, but rate of its discontinuation is as high as 90%.⁶

Other studies are pointing to the fact that more women - 60% - show interest for birth control options with minimal side effects such as the FABM, if they could be provided with adequate information.⁶

Fertility regulation dates back to the history of humankind if the genesis record of Onanism is taken into consideration. First steps into scientific basis of modern artificial contraceptives was initiated by the turn of 19th century and established by the end of World War I (28 July 1914 – 11 Nov 1918).⁷ Over the years, artificial family planning methods (AFPM) offered to users remain fundamentally barrier or hormonal methods with little advance in development or improvement to reduce their side effects profile.⁸ These known medical side effects of AFPM could range from minor effects such as nausea, allergic reactions, irregular bleeding to serious side effects such as migrainous headaches, increased susceptibility to sexually transmitted infections, to fatal ones such as deep venous thrombosis leading to embolic phenomena, breast cancer as well as having abortifacient effects. Hormonal methods of AFPM seem the quintessential of birth control.⁸ Many women are dissatisfied with AFPM yet have no knowledge about natural methods as alternatives and neither is this option offered to sub-fertile women who are trying to achieve pregnancy.⁹ Women need to be aware of all existing options of fertility regulation methods, have sound information regarding whatever method is offered, in order to make informed choices.

From the years 1988 to 2004, several authors have critically reviewed the effectiveness of FABM.¹⁰ Varied issues have been described as barriers to establishing a solid evidence based comparison between natural and artificial methods such as: concurrent evolution of FABM over 40 years in differing countries with lack of evidence-based developer specific guidelines; variations in efficacy as a consequence of differing cultural background of volunteers and researchers in some studies as well as varying motivation and scientific methodological rigour; biased and questionable method of calculating effectiveness in addition to classification of unintended pregnancies in course of research; use of new simplified methods of FABM in developing countries where cost of teaching is an issue.¹⁰

One of the greatest disadvantages of FABM is lack of a large time commitment by clinicians to teach and educate patients effectively as well as clinicians and patient's perception of what is a highly effective and easy to use method of contraception.¹¹ In any case, practice has shown that patients are not informed of the side effects of AFPM. Since FABM have shown a comparable effectiveness as AFPM, it should have a place in the cafeteria of available family planning methods.¹ Its advantages and limitations should be explained to users in as much as it is applicable to AFPM, in this way giving room for appropriate informed consent by the user. While a lot is known on user's choice and satisfaction regarding family planning methods,¹ little has been researched on perceptions of providers on NFP.¹

This study aims to understand the facilitators that enable or the barriers that prevent clinicians from advocating use of NFP as an option in child spacing, achieving or postponing pregnancy during counselling sessions on choice of family planning methods.

1.2. RESEARCH RATIONALE AND SIGNIFICANCE

According to the London summit report, Family Planning 2020,¹² which looked at discontinuation of contraceptives: reasons, challenges and solutions, a woman would use contraceptive methods for 20 months with a mean duration of 12-18 months across different methods. Intrauterine devices (IUD) seem to be the longest lasting while use of injectable is the shortest. The reasons women give for their decisions relates to side effects, myths / rumours / misinformation and motivation. The highest rate of discontinuation pertains to hormonal methods due to concerns related to irregular bleeding, amenorrhoea, mood changes mostly and these are not given appropriate importance by providers. Further, pre-contraceptive counselling information is sparse and religious needs of users are often unmet.

South Africa committed itself after the summit to strengthen uptake of contraceptives through training of all categories of health care workers at all levels of health care including community based care. This entailed revision of the national contraceptive guideline to include all types of family planning methods as well as a strong advocacy for dual protection.¹³

In practice, a new national guideline was been approved, NFP included, with no differentiation between old or modern methods. In spite of concerns of users - side effects, health beliefs, myths and misinformation, religious convictions and cultural practices - no option has been provided to address them as a way of ensuring that their rights to health needs are met.

This research which looks at perceptions of clinicians about natural family planning methods. Identifying factors that encourage or dissuade their advocacy in clinical practice in our African context, would be the first of its kind. Besides contributing to existing literature, it could open up discussions around holistic implementation of strategies directed towards ensuring reproductive health of women which ought to include preserving fertility and not its destruction with added consequences.¹⁴

1.3. RESEARCH QUESTION

Why do clinicians not advocate for Natural Family Planning as a method for birth spacing, postponing or achieving pregnancy?

1.4 CHAPTER ORGANIZATION

This research report is divided into six chapters. Chapter one is the *introduction* which dwelt on an overview on the polemics around NFP. Chapter two is on *literature review*. It goes on to define terminologies, describe modern NFP methods, explore and explain extensively the subject of effectiveness and its measurements as well as important information from scientific literature around clinicians' and patients' related factors. Chapter three describes systematically *methodology* of this study, its rationale, selection of participants and processes of data collection and analysis. Chapter four is the presentation of the *findings* in themes grouped around responding to the research objectives. Chapter five focusses on *discussing* the results highlighting the three main overarching facets influencing clinicians' perceptions of NFP. The sixth is the *concluding* chapter with *recommendations*.

CHAPTER TWO: LITERATURE SURVEY

2.1 SOURCES OF REFERENCES

The University of Navarre search Engine UNIKA, PUBMED and Google Scholar search engines were extensively utilized to source robust published literature. Key words were: NFP, FABM, periodic abstinence, physicians, nurses, knowledge, attitudes, perceptions, practices, effectiveness, efficacy, history, and historical perspectives. The Google search engine was useful in identifying unpublished grey literature. Further relevant journals were identified within the bibliography section of a few of the read articles.

Useful and insightful journals that have contributed to the richness of the literature review have been drawn from diverse publications:

2.1.1 Peer-reviewed journal publications

Linacre Quarterly; Journal of Inter-professional care; Studies in Family Planning; *Acta Informatica Medica*; Issues in Law and Medicine; Best Practice & Research: Clinical Obstetrics & Gynaecology; Frontiers in Public Health publications; American Family Physicians Journal; Osteopathic Family Physician's Journal; American College of Obstetrics & Gynaecology; Journal of Contraception covering reproductive medicine; Journal of Adolescent Health; Journal of Midwifery and Women's Health; European Society of Contraception & Reproductive health; American Board of Family Medicine Journal; Medical Journal of Zambia; Advances in Contraception Journal and Lancet publications.

2.1.2 Institutional publications

Marquette University, College of nursing faculty; Global Library of Women's Medicine; Human Sciences Research Council, South Africa; Centre for Diseases Control and Prevention, United States; World Health Organization.

2.1.3 Online Newsletters

Anuario Filosofica, University of Navarre (one); Natural Womanhood (one); TeenStar (one) and MedicineNet.com (one).

2.1.4 National Guideline

National Contraception Clinical Guideline, South Africa.

2.1.5 Grey unpublished literature

One honour project, a dissertation and conference paper

2.1.6 Textbook /Lecture note/CD-Rom: One of each kind.

2.1.7 A blog reference: Quora

2.2 LITERATURE SURVEY

2.2.1 Definition of Terms

2.2.1.1 Periodic abstinence

According to the medical definition, *“it entails not having sexual intercourse on the days of a woman's menstrual cycle when she could become pregnant or using a barrier method (such as condom, diaphragm or cervical cap) for birth control on those days.”*¹⁵

2.2.1.2 Fertility awareness based method

*“Fertility awareness based method is a term that includes all family planning methods that are based on the identification of the fertile time” through “the woman's observation of physiological signs of the fertile and infertile phases of the menstrual cycle.”*¹⁰

2.2.1.3 Natural family planning

It has been defined by World Health Organization (WHO) as *“methods for planning or preventing pregnancies by observation of naturally occurring signs and symptoms of fertile and infertile phases of the menstrual cycle.”*^{16,17} They are methods that preclude use of chemicals, mechanical barriers or surgical procedures; observes abstinence from sexual intercourse during the fertile phases of the menstrual cycle; and sexual intercourse needs to be *‘complete without interruptions’*^{16,17} of any kind when it does take place.^{16,17} NFP is not a contraceptive method but a fertility awareness method which teaches

the woman self-knowledge of the fertile and infertile periods in her cycle, care of her reproductive health as well as family planning.¹⁴ It is a term which has been in use since 1970.¹⁴

2.2.1.4 Artificial family planning method

This could be defined as “*any product, procedure or practice that uses artificial or unnatural means to avoid pregnancy.*”¹⁸ This includes barriers - (condoms, diaphragms) -, hormonal (pills, injections, implants, intra-uterine devices), surgical (vasectomy, tubal ligation, hysterectomy) methods and unnatural practice of *coitus interruptus*.¹⁸

2.2.2 Modern natural family planning methods

Natural Family Planning is a distinguished manner of living human sexuality which among other benefits enables the woman to space out birth of her children, achieve or postpone pregnancy different from contraceptive techniques of artificial forms of birth control. In keeping with WHO definition, FABM would qualify as NFP if it entails observing periodic abstinence during the woman’s fertile days instead of using artificial contraceptives.¹⁹ “*The unifying theme of FABM is that a woman can reduce her chance of pregnancy by abstaining from coitus or using barrier methods during times of fertility. NFP is a subset of FABM that specifically excludes concurrent use of all forms of contraception, including barriers, as a supplement to the observation of fertile signs; pregnancy is avoided through abstinence alone.*”⁴ The old traditional methods of FABM are no longer taught most of the time and do not fall within the criteria for modern NFP as stated above. The term NFP, would be used throughout this study.

Modern NFP methods have a common scientific foundation, observation of characteristic of cervical mucus, to determine fertility status of women. This discovery of the intrinsic relationship between cervical mucus, hormonal balance and fertility status of the woman has been described as a “*milestone*”²⁰ discovery in the history of natural fertility regulation. Further, changes in cervical mucus correlates with the woman’s sex hormone levels, and her fertility status could be determined by observing characteristics of cervical mucus at the vulva.²⁰

Billings ovulation method (BOM) of NFP gives pre-eminence to the pattern of cervical mucus as indicator of fertility or infertility in the woman’s menstrual cycle. The couple are taught to identify the woman’s basic infertile pattern of her menstrual cycle which could either be an unchanging pattern of dryness or of discharge felt at the vulva. The user is asked to record on a chart every evening, describing her observations at the vulva while going about her usual activities. It is a method based on observation of

patterns. Fertility is recognized by a changing developing pattern of variable length and infertility by an unchanging pattern. There are four guiding rules that needs to be correctly applied in order to achieve or postpone pregnancy. Periodic abstinence during the fertile phase of the cycle excludes any form of genital contact or use of any artificial method.²¹

Creighton model and two day method are two other modern NFP methods that use observation of cervical mucus as markers of fertility. While Creighton's model is a standardization of BOM, fertility according to the two day method depends on an affirmative response by the woman to either of two standard questions, "*Did I note secretions today?*" and "*Did I note secretions yesterday?*"¹⁹

Symptothermal method consists in identifying the fertile and infertile days of the woman's menstrual cycle by simultaneous observation and interpretation of the BBT, cervical mucus secretions and other minor symptoms such as inter-menstrual spotting, pelvic (Mittelschmerz sign) or low back pain, discomfort in breasts, oedema of labia or abdominal distention among others. The last infertile day of the menstrual cycle in the pre-ovulatory period is determined by using the length of the past cycles (within 6-12 months) to calculate fertility in the current one. Cervical secretion is the bases of this method while the others serve as double-check.²²

These physiological changes described depends on the influence of fluctuating levels of oestrogen and progesterone on the female reproductive organs during her menstrual cycle.

2.2.3 Determining Effectiveness of Family Planning Methods

Scientific research has shown that modern NFP methods have comparatively the same effectiveness as AFPM¹. Several scientific journals report effectiveness which is difficult to measure directly from a study because in that case expected pregnancy - "*estimated pregnancies that would have occurred if the couples had used no method of contraception*"²³ - should be determined a priori. Therefore scientific reports should focus on pregnancy rates or probability of pregnancy during use of a family planning method.^{23,24} In order to determine true effectiveness of a method, one has to distinguish between "*method*"¹ and "*use effectiveness*."¹

It is also difficult to compare pregnancy or contraceptive failure rate from review of previous studies due to variations in study design, study population as well as data collection and analysis techniques.^{23,25} Further, there are many studies in which a high proportion of the study sample is lost to follow up and as a consequence it is difficult interpreting the results.²⁶ Statistical presentations of clinical trials on contraceptives have been flawed by incorrect use and application of statistical terminologies.²⁶

Failure rates from statistical literature, have been inappropriately interpreted as time-to-event occurrence such as a pregnancy, which means rate of failure of the contraceptive method. Failure rates when well understood refers to method failure occurs (*"when a method was used correctly and consistently"*²³), and user failure (*"pregnancies that resulted from incorrect or inconsistent use"*²³). The results of clinical trials are flawed because detailed information on incorrect or inconsistent use is collected only in the month a pregnancy occurs. This excludes women who used the method incorrectly or inconsistently from the numerator meanwhile the denominator would include all woman-month. As a consequence, the method and user failure rates are underestimated. A pregnancy cannot merely be equated to failure of a contraceptive method because one can only affirm with certainty failure of a method if pregnancy is expected to occur even without use of a method, as a consequence a more precise terminology would be pregnancy rates.²³

Since 1980s, the terms method (perfect use) and user (typical use) pregnancy rates have been introduced in order to standardize measure of contraceptive effectiveness.¹¹ Perfect use pregnancy rate calculates probabilities of pregnancy within 6 or 12 months after initiation of perfect use of a contraceptive method.²³ Steiner et al²³ describes four variables that influence perfect and typical use which should be taken into consideration as: *"capacity to conceive, frequency and timing of intercourse, degree of compliance and inherent protection of method."*²³

It is also necessary to distinguish efficacy from effectiveness. *"Efficacy denotes how well something works under ideal conditions (perfect use)."*²³ Applying it to contraceptive efficacy, it denotes the number of unintended pregnancies in spite of using a specific method, while *"effectiveness denotes how well it works under normal circumstances (typical use)."*²³ Only contraceptive efficacy is generalizable if by generalizability it is understood as *"applicability of the results from a given study population to other populations."*²³ Method efficacy is the capacity of a determined method to prevent fertilization when used in an ideal or perfect laboratory condition, which means errors attributed to method only. Practical efficacy is the capacity of a determined method to result in fertilization in normal use which includes errors in use of the method by the user. In some methods, one can only refer to method efficacy such as male or female sterilization while in other methods, the two should be essentially reported.¹⁵ Three factors that could influence efficacy have been identified as: *"inherent efficacy of the method when used correctly and consistently (perfect use) and the technical attributes of the method that facilitate or interfere with proper use; characteristics of the user such as age, frequency of intercourse, imperfect use; and competence and honesty of the investigator in planning and executing the study and in analysing and reporting the results."*^{24,26} The first two would manifest inter and intra-individual variations.²⁶

It is important that users are able to make an informed choice of method. This could be possible if clinicians are able to explain both method and user efficacy.¹⁰ An important factor that has been highlighted as confounder for published results on effectiveness is sexual behaviour in fertile time, that is, if couples observed modification of sexual behaviour during fertile phase of the cycle in order to space birth, postpone or achieve pregnancy.¹⁰

2.2.3.1 Pearl Index

Pearl Index (PI) and Life table analysis (Table 1) are currently two methods used for measuring contraceptive efficacy in clinical trials. PI, the number of unplanned pregnancies per 100 woman-years of exposure, is used as a measure of contraceptive effectiveness. That is the number of pregnancies that would occur in 100 women using the method within a year. It is calculated by dividing the number of conceptions by the number of months of use of the method of family planning under study and multiplying by 1,200 if reported in years and by 1,300 (modified PI) if reported in cycles.^{16,25} The numerator is the number of pregnancies and the denominator is the cumulative number of months or cycles of exposure from start of the method to the completion of the study, discontinuation of method or pregnancy. The result is pregnancy rate, expressed as number of pregnancies per 100 women during 1 year. PI is easy to calculate but provides only an approximation of a method's effectiveness.²⁷ This is because, it does not follow up all the sample for up to at least one or two years. Failure rate of most methods decline with duration of use,^{23,28} - attributed to wrong selection of patient and that practice makes perfect - and as a consequence it is deeply flawed. It only takes into consideration the duration of use of the method by the couple. A lot of authors report PI, therefore giving falsely high efficacy rates. PI has fallen into disuse because of this great limitation of controlling for duration of use of family planning method.^{23,26}

2.2.3.2 Life table analysis

Life-table (LT) analysis calculates the cumulative probability of unintended pregnancy for each 100 women during one or two years of using the method. It is an advanced nonparametric technique that is more accurate than the PI in determining the effectiveness of family planning methods because it adjusts for the time variations resulting from users entering and leaving a program.²⁷ LT analysis results in method and use effectiveness. *"Method effectiveness is the effectiveness of a method of family planning when it is taught correctly and used according to instructions. Use effectiveness is based on the actual use of the method and includes errors made in teaching and in use."*²⁷ LT analysis provides monthly pregnancy rate for each month of use and as a result can provide a cumulative pregnancy rate for any

duration of exposure. Therefore, early pregnancy rate and efficacy could also be identified using this statistical analysis.^{25,28} LT analysis can be reported as net rate (multiple decrement life table) or gross rate (single decrement life table).²⁸

Net rate or net life-table probability refers to the probability of terminating a study due to reasons such as pregnancy, loss to follow up, discontinuation of method, medical complications, personal reasons, etc.^{23,28} The denominator for each specific reason is the number of women at risk of pregnancy at the beginning of the specified interval. Thus net life-table calculations does not adjust for the influence on the denominator by other possible reasons.²³ *"Net life-table probabilities are useful when the purpose is to compare reasons for termination within a study."*²³ Although net rates provide clinical and demographic information, could compare reasons for discontinuation within a study, its efficacy results are not useful for comparison of probability of pregnancy of different methods within or across studies.^{23,28}

Gross life-table rates or probability refers to only women who discontinue use of family planning method because of unplanned pregnancy. Women who exit the study for reasons other than unintended pregnancy are not included in the analysis; they only contribute to exposure until exit but not to failure. Therefore gross rates express pure measure of accidental pregnancies and therefore can be used for comparison within or across studies. Unfortunately, some researchers report only net rate or do not specify whether they are reporting net or gross rates and at other times confuse gross rate with net rate.^{23,28}

Table 1: Pearl Index and Life-table analysis

Percentage of women experiencing an unintended pregnancy during the first year of typical use and the first year of perfect use of contraception and the percentage continuing use at the end of the first year (United States). ²⁴			FABM on Life Table analysis ⁴	
Percentage of women experiencing an unintended pregnancy within the first year of use ‡(Pearl Index)			Women with unintended pregnancy within 1 year of use (%) *(Life Table Analysis)	
	Typical use	Perfect Use	Typical use	Perfect use
No method	85	85		
Artificial family planning methods				
Female sterilization	0.5	0.5		
Male sterilization	0.15	0.10		
Combined Oral contraceptive pills	9	0.3		
Evra patch	9	0.3		
NuvaRing	9	0.3		
Depo-Provera	6	0.2		
Intrauterine device	<1	<1		
ParaGard (Copper -T)	0.8	0.6		
Mirena (LNg IUS)	0.2	0.2		
Implanon	0.05	0.05		
§Fertility awareness based methods (FABM)	24			
Symptothermal method			0.2-20	0.3
Ovulation method		3	10.5-22.	0.5
Two Day method		4	13.7	3.5
Standard days method		5	12	4.8
*Creighton			17.1	0.5

LNG-IUS, levonorgestrel-releasing intrauterine system

*Pallone has not indicated if his life table analysis is net or gross rate. Besides, typical use pregnancy rate using Creighton method under life table is grossly inaccurate because it did not distinguish women who deviated from the method with the intention of getting pregnant.

‡Trussell's calculation was done using Pearl Index.

§Typical use rates of all FABM have been lumped inappropriately together.

2.2.4 Comparing effectiveness of natural and artificial family planning methods

For a birth control method to be rated highly efficient as the hormonal pill, it requires a method failure rate of less than one pregnancy per 100 women per year.¹⁰ Studies would very often report method effectiveness as opposed to use-effectiveness which is influenced by selection of study populations. Analysing varied studies in order to determine overall effectiveness, has variations in study population, social setting and infrastructure to deliver FABM as severe constraints.¹⁰

Most commonly reported unintended pregnancy rates have based their results on the low quality retrospective report by Trussell (Table 1), which has been disqualified because of its highly biased methodology. Trussell primarily based his retrospective survey on patient recall, data collection by telephonic surveys, as well as the fact that 86% of FABM participants used the calendar rhythm method which is an outdated and less effective method. Further, Trussell lumped all FABM together in his rate which disregards and masks important differences between these varied methods as well as his unsatisfactory statistical calculation of adjusted rates.⁶ (Table 1)

Mansour et al²⁹ did a systematic review of existing literature to summarise ranges of reported efficacy rates of the varied commonly used fertility control methods. Studies were selected from January 1990 until February 2008, excluding retrospective data based studies. In order to ensure adherence to international guideline recommendations for efficacy, all studies with less than 400 participants, and six months duration were excluded. Inclusion criteria considered were reporting results as PI (perfect / typical use) or LT (gross, net or unclear if not reported in the original paper). The result showed consistency with report of Trussell with efficacy rates in this descending orders: firstly female sterilization, long acting hormonal contraceptives and implants; secondly copper intrauterine devices with surface area of above 300mm²; thirdly copper intra-uterine devices with less than 300mm² surface area, short acting hormonal contraceptives which included injections, pills, patch and vaginal ring; barrier and natural methods had the least efficacy rates. Unfortunately, most of the results for hormonal pills have been based on PI calculation. Analysis by Mansour et al²⁹ reflects that efficacy rates reported by most studies for NFP methods are grossly inaccurate because the old traditional NFP and modern NFP methods have not been analysed separately.

Prospective two armed cohort study to ascertain effectiveness of symptothermal method of NFP by Herman et al¹⁰ in which 900 participants were recruited, demonstrated an efficacy rate of 0.4 pregnancy per 100 woman years if abstinence is observed during the fertile period. According to findings by Fehring et al,²⁷ method effectiveness rates for avoiding pregnancy using Creighton Model, life table analysis at 12 months was 1.2 / 100 couples (98.8%) while use-effectiveness rate was 2.0/100 couples (98.0%).

These results are consistent with effectiveness rates by Doud in 1985, Hilgers et al in 1980 and Howard in 1990. At 12 months of use of method, method effectiveness, ranged from 98.8% to 99.9% while use effectiveness were 94.8 % (Hilgers); 96.2% (Doud); and 97.4% (Howard).²⁷ Meta-analysis by Kambic in 1991 reported higher rates.²⁷ Confusing results from studies is due to a wrong classification of unintended pregnancy such as WHO study in 1981 where calculated use effectiveness using PI included couples who consciously departed from the rule of the method.²⁷ Communicating effectiveness of family planning methods to users in a lay man's language is crucial for informed choice.²⁹

Table 2: Summary of contraceptive efficacy ranges with various contraceptive methods²⁹

Table 2: Summary of contraceptive efficacy ranges with various contraceptive methods²⁹

Method	Pearl Index (range)		Study duration (months, range)	1 year Pearl Index (range)		Life-Table (range)			Study duration (month, range)	1 year life-table (range)		
	Perfect	Typical		Perfect	Typical	Gross/100	Net/100	Unclear/100		Gross/100	Net/100	Unclear/100
COC	0-1.26	0-1.28	6-36	0-1.26	0-1.28	0.2-2.3	0.1-1.5	0-2.6	6-28	0.2-2.3	0.1-1.33	0.2-2.6
20µg EE	0-1.26	0-1.82	6-36	0-1.26	0-1.6	NA	NA	0-2.6	6-28	NA	NA	0-2.6
30µg EE	0-0.62	0-1.19	6-24	0-0.55	0-1.19	NA	NA	0.03-1.385	6-12	NA	NA	0.43-1.07
Progestogen-only pills	0.14	0.41	12	0.14	0.41	NA	NA			NA	NA	
Patch	0.59-0.99	0.71-1.24	6-12	0.59-0.99	0.71-1.24	NA	NA	0.4-1.3	6-12	NA	NA	0.4-1.3
Vaginal ring	0.31-0.96	0.25-1.23	12	0.31-0.96	0.25-1.23	NA	NA	0.71-1.2	12	NA	NA	0.71-1.2
Implants	0	0-0.3	24-84	NA	0-0.08	0-1.3	0-0.8	0-2.32	24-84	0-0.2	0	0
Injectables	0	0	12	0	0	0	0-1.1	0.03-0.62	12-36	0	0-1.1	0.06-0.62
Cu IUDs >= 300mm² surface	NA	0.16-1.26	48-84			0.1-5.9	0-6.5	0.4-2.9	12-144	0.1-1.4	0-2.0	0.4-1.2
Cu IUDs < 300mm² surface	NA	NA				0.6-8.5	0.5-7.6	1.7-4.9	12-144	0.6-1.5	0.5-0.8	
LNG-IUS	NA	0.09-0.11	60		0.1	0-1.1	0-0.3	0-0.5	36-84	0-0.6	0-0.1	0-0.1
Male condom	NA	2.5-5.9	6			NA	NA	1.0-10.8	6	NA	NA	
Other barrier method	NA	NA				9.8	NA	7.4-17.7	6-12	9.8	NA	16.7-17.7
Natural methods*	0.7-3.1	3.8-20.4	36	3.1	20.4	24	7.02-7.68	0.4-38.4	6-60	24	7.02	2.5-38.4
Locational amenorrhoea	NA	NA				NA	NA	0.4-8.8	6-12	NA	NA	4.4-8.8
Female sterilization	NA	NA				0.08-0.69	NA	0.55-1.85	12-120	0.11-0.69	NA	0.55

COC, combined oral contraceptives. EE, ethinylestradiol. Cu IUD, copper intra-uterine device. LNG-IUS, levonorgestrel-releasing intrauterine system. NA, not available or not applicable

*NFP methods have been analysed together

2.2.5 The Role of Clinicians

Clinicians play an irreplaceable role as advocates of health in general. Their provision of information and opinion regarding a healthy, effective and appropriate choice of birth regulation method is highly regarded by patients. Studies have shown that effectiveness of NFP methods is influenced by varied factors including quality of teaching and instruction received by the user, knowledge, attitude and practice of clinicians and other birth control providers.¹ Besides, clinicians would also act as potential decision makers regarding suitable birth regulation methods included in family planning policies and programmes.

Most physicians would consider that in the right circumstances such as motivated couple, patient with specific health risks, NFP would be a useful and important option during family planning counselling sessions.¹ In any case, clinicians do not routinely offer NFP while counselling patients and when they do, the older methods - calendar rhythm and BBT- are explained.³⁰

Most modern NFP providers are not clinicians. As a result, clinicians are in a position to act as facilitators or barriers between NFP seekers and providers because their knowledge and attitudes will affect patients' perceptions as well as impeding referrals to NFP providers where the clinician is not qualified to do so.¹ According to the study by Snowden et al,¹ willingness of providers to give information on NFP is influenced by perceived usefulness of method which does not necessarily translate into practice and personal use of method. Also, family planning or fertility regulation method is perceived as good if it is scientific, modern and prevents pregnancy irrespective of its health risks. Snowden's¹ study also showed that most physicians had only knowledge of basic principles of the traditional NFP and no knowledge of modern NFP. This situation of misinformation or no information runs the risk being propagated to patients who rely on clinicians to provide adequate information for informed decision making.

2.2.6 Knowledge of natural family planning methods by clinicians

The positive and appealing aspects of NFP is well documented such as being cost effectiveness, absence of side effects, the woman's fertility is not affected with immediate return to normal cycle on its discontinuation, relationship enhancing effect, and the fact that it is natural, is a motivation for many lovers of the green movement. It is a method that is compatible with religious and or cultural values³¹ of many potential users. Other patient empowerment benefits are increased awareness of menstrual and fertility cycles, easy availability globally, and patient controlled as opposed to health care provider controlled.²³ It is interesting to read the report by Fehring³ stating that physicians do not recommend NFP because it is unnatural which contradicts what several current evidence-based literature has documented. NFP encompasses knowledge of the physiological basis of female fertility.

NFP users experience psycho-spiritual benefits unlike users of AFPM such as lower divorce rates, improved communication and sexual interactions, deeper intimacy, and respect for partners.⁴ The added benefits of knowing the menstrual and fertility cycle helps the woman identify reproductive health problems timeously through indicators such as abnormal bleeding and mucus discharge, as well as abnormally shortened or prolonged cycles. For women in the reproductive age group, these fact could make NFP a component of preconception care program, part of a larger preventive health care model resulting in healthier women and infants.¹¹

In spite of these advantages, many health care professionals are not ardent providers of this viable option of reproductive care. A geographical study has shown that physicians have significant knowledge deficit about NFP compared to midwives.⁴ This gap in knowledge and practice is founded on an incomplete and or scientifically inaccurate information and knowledge of modern NFP methods and their efficacy.^{2,11} Literature has shown that basic medical or nursing education in NFP is mostly absent and if present, it is either out-of-date, or cursory.³ Very few studies have looked into the inclusion of NFP in the professional curricula of health care workers as well as the quality of such program where it does exist.^{2,11} Besides, no study in reported literature have compared knowledge of NFP and artificial methods of contraception in health care workers. According to studies,¹⁻³ there is an extreme paucity of accredited health care workers who are NFP providers. The result is the recommendation of NFP as a prescriptive treatment rather than an educative process³ and this behaviour of clinicians would contribute to poor instruction of users and in consequence, high typical use rates.

A review of patient educative materials on NFP provided by WHO by Christina Lopez del Burgo and Jokin de Irala, have shown inaccuracies in concepts and erroneous scientific data foundations of NFP; and symptothermal method was excluded.¹⁷

2.2.7 Patient Related Factors

Clinicians are also faced with constraining patient related factors that frustrate any little motivation to give information on NFP. Patients' lack of baseline information on fertility, besides misinformation or misunderstanding, creates reluctance for clinicians to introduce such counselling sessions as part of reproductive care.¹¹ Some studies have reported determinants of appropriate candidates for NFP as life style behaviours - number of relationships; life situations - adolescence, women with irregular periods; and personal preferences - lack of interest of partner, patients' understanding of what is highly effective and easy to use birth control method.¹¹ Studies have also documented absence of educational strategies and culturally acceptable educational materials on NFP. An identified inhibiting factor is using married

status as eligibility criteria to use community resources such as Churches for training and education of patients in NFP which excludes potential users in irregular situations or single status.¹¹ Choi et al³² in their study affirms that NFP only works in a committed relationship where there is good communication between couple. This factor could potentiate why married status, a stable commitment, would be the ideal relationship to teach and practice NFP effectively.

2.2.8 Standardized Teaching of natural family planning

Studies have shown that NFP is a highly effective method of avoiding pregnancy, when it is taught by an accredited provider in a standardized way.³ In 1981, WHO did a study on the effectiveness of the ovulation method after completion of a teaching phase of three cycles. Almost all the participants (over 90%) were able to identify their fertile period by self-observation of cervical mucus and most of the participants were illiterates or had very little schooling.^{1,33} This nullifies the affirmation that NFP is difficult to learn. What may be lacking would be availability of accredited providers who teach the method properly.

Behaviour motivational change to enhance adherence to method is not a unique problem to NFP usage affirms Fehring³, but this is also applicable to artificial contraceptive methods and the onus lies on the health care professional to facilitate user's adherence.

2.2.9 South African Context

South Africa adopted its revised National Contraception Clinical Guidelines (NCCG) in the context of 2012 Global Family Planning summit held in London, a renewed internal focus on reproductive health.³⁴ This adoption also coincided with re-vamping of the national health care system with introduction of policy documents such as re-engineering primary health care that aims to strengthen health systems; enhance effective implementation of core standards and introduction of the national health insurance. At the same time, the country was faced with HIV epidemics with a prevalence rate of 12.2% in a total population of 48 million.³⁵ As a consequence, this guideline was revised with the attempt to update clinical practice in line with latest evidence based information as well as WHO's recommendations for contraception and fertility planning.³⁴

The NCCG outlines that modern fertility based methods of planning or avoiding pregnancy are effective, free from side effects although it could be harder to comply with their rules. The methods mostly used in South Africa are the Billings ovulation and symptothermal methods. Lactational amenorrhoea method is

also outlined as an effective temporary birth spacing method if criteria for use is adhered to.³⁴ NFP is included as part of the NCCG but few clinicians are aware of this instead there is a policy dominated practice of prescribing only AFPM.

2.2.10 Conclusion

NFP is a concept that is misunderstood. It's mechanism of action, benefits and modern forms that are comparatively as effective as AFPM for family planning - spacing birth, postponing or achieving pregnancy - are unknown to both users and providers. It is economical, easily accessible and free from side effects among other benefits. Further, it empowers women with knowledge leading to self-awareness of their body, and prepares men and women to learn to integrate fertility into their relationship.

Scientific literature is fraught with misleading statistical terminologies in expressing probability of pregnancy, non-comparable study designs, and unacceptable measure of effectiveness. Ability of clinicians to explain method and user effectiveness is vital for patients to make informed decisions. Varied factors would determine effectiveness of NFP methods such as quality of training of the user, knowledge, attitude and practice of health care or birth control provider among others.

NFP might seem to have disadvantages of time factor for some overburdened health care system, poor compliance by patients and difficult to learn, although poor compliance is not unique to it. Studies have shown that education in NFP empowers women to control their fertility instead of dependency on prescriptive care by clinicians and illiteracy is not a barrier to learn the method as evidenced by study results.

Many studies have highlighted the key role of adequately trained clinicians, NFP providers as well as patients, in order to attain high user effectiveness. Knowledge always influences attitudes, beliefs and practices. This is where medical and nursing training curricula have been found deficient in equipping clinicians to offer holistic options which would enable patients make informed decisions. There is a need to bridge the gap between policy and its implementation through advocacy by policy makers and adequate preparation of medical and nursing professionals.

3.1 RESEARCH DESIGN

This research explored perception of clinicians regarding recommending natural family planning as one more option in reproductive health care. The researcher aimed to make meaning out of certain beliefs and practices around natural family planning method. The primary question that guided this study was: *why do clinicians not advocate for Natural Family Planning as a method for birth spacing, postponing or achieving pregnancy?* Studies done in other countries have shown a general non-acceptance of natural family planning due to perceived high failure rate. Besides, clinicians who are expected to be experts in medical science have little or no training, knowledge and misconstrued information regarding this method. As a family physician practicing in a context where natural family planning method is never advocated for in clinical practice in spite of the fact that it is contained in the country's national contraception guideline, I was interested in discovering and interpreting this phenomenon rather than testing hypothesis. Basic interpretive study design was used as the best approach because human actions can only be understood if the meaning humans assign to them is understood.³⁶

The central characteristics of qualitative research is that each individual constructs reality while interacting with the world around him or her. In basic interpretive study design, the researcher seeks to understand the meaning a phenomenon or situation has for those involved; the meaning they construct. Cavazos³⁷ stated Merriam's criteria for basic interpretative study:

- a. *"How people interpret their experiences;*
- b. *How they construct their world;*
- c. *What meaning they attribute to their experiences."*³⁷

The researcher explored clinicians' knowledge of natural family planning, identified factors which enabled or deterred offering natural family as an option for reproductive health care. The researcher obtained a rich description of these factors, making sense of their way of expressing meaning as well as what the participants deemed contributory to their effectiveness or not.

The world or reality is not fixed but in continuous flux as a result there are multiple constructions or interpretations thereof. Qualitative researchers are interested in *"understanding what those interpretations are at a particular point in time and in a particular context."*³⁷ Basic Interpretive qualitative approach entails learning how individuals experience and interact with their social world and the meaning

it has for them.³⁶ Further, since a qualitative research aims to find meaning in lived experiences, the researcher is the “*primary instrument for data collection and analysis*”³⁶ and as such is able to immediately respond and adapt to responses as well as expand his or her understanding through verbal or nonverbal communications. The research process is inductive which means, “*the researcher gathers data to build concepts, hypothesis or theories.*”³⁶

Data collection for basic interpretive study is done through interviews, observations, field notes or document analysis. Data are inductively analysed to “*identity recurring patterns or common themes that cut across the data.*”³⁶ As a consequence, it is a research design that is richly descriptive and thus appropriate for this study.

3.2. AIM AND OBJECTIVES

Aim

To understand the barriers that prevent or facilitators that enable clinicians to offer Natural Family Planning as an option for birth spacing, postponing or achieving pregnancy.

Objectives

In order to respond to the research question the following objectives were developed which guided outline of questions for interview as well as analysis of collected data into themes.

- a. To explore clinicians’ knowledge of types of natural family planning methods.
- b. To describe perceptions of effectiveness of natural family planning methods.
- c. To identify factors that enable clinicians to offer natural family planning methods.
- d. To identify factors that deter clinicians from opting for natural family planning methods.

3.3 SETTING

This study was carried out in Ekurhuleni health district, Gauteng Province, South Africa. Ekurhuleni is one of the densely populated municipalities within Gauteng Province and the country as a whole and covers a wide geographic area. It extends from Tembisa in the North to Germiston in the South until Springs and Nigel in the East. Within this geographic area, there are 90 health centres; one district, two

regional and one tertiary hospitals. Due to its extension and dense population, it boasts of diversity in cultural mix and interactions.

This study explored the perception of 15 health care workers specifically nurses and doctors regarding recommending natural family planning as an option for reproductive health care. Most of the participants were selected from the northern region due to proximity to the researcher. Big clinics with head counts 5000 and above which included the community health centre, were chosen sites of study which intent was to ensure sufficient clinical experience of both nursing and medical staff. Also, some participants - specialists - who work at the hospitals within the district were recruited. Focus was given to representing diversity in characteristics of participants.

3.4 PARTICIPANTS

The study participants were clinicians whose scope of practice included care of a woman's reproductive health: medical officers, specialist family physicians, Obstetricians and Gynaecologists as well as professional nurses who render maternal health services at community health care centres, primary health care clinics and midwife obstetric units.

Purposeful sampling technique, a technique where the researcher intentionally selects individuals and sites, was used in addition to snow balling, where the researcher was referred to key informant. Further, nurse clinicians were nominated by their managers. The total number of participants was limited to 15 due to information redundancy in the sense that no new themes were emerging.

After participants were selected and agreed to participate in the study, they were contacted telephonically in order to set up convenient time and location for each individual interview. In order to protect confidentiality of participants, pseudonyms have been used during analysis of data. In addition, participants were provided with both oral and written explanation of study; and all participants gave their verbal consent. At the time of interview, they affirmed the adequacy of their verbal consent although a written consent form was available. They were all informed that they could discontinue with the research at any given time.

3.5 DATA COLLECTION

Data collection was done by individual interviews together with making field notes during the course of the interview. Interview was selected as the best instrument to provide the best information³⁶ in order to respond to the research question. A semi-structured interview questionnaire guide was developed which was adopted with some modifications from that used by Kelly.¹¹ A pilot study was not done due to clarity of the questions with the first few interviews.

Before the interview, each participant filled a demographic questionnaire which provided participant information on age, gender, marital status, country of origin, educational qualifications, job position and years of work experience (appendix III).

The main questions were open-ended with sub-questions in concrete sections. These questions served as prompts for participants. Other aspects explored were leads from the interviewee.

In-depth individual interviews were conducted between the periods of December 2017 till end of January 2018. The duration of the interviews were about 30 minutes with few extremes of 15 minutes to 50 minutes.

The researcher ensured that time, and place for the interview was set at participant's convenience. This ensured attention, serenity and smooth course of the process. The interviews were digitally recorded with consent given by the interviewee and transcription was verbatim. The researcher out-sourced transcription of each individual interview but did cross-checking by re-listening to the interviews while making appropriate corrections. There were some occasions of incomplete sentences due to muffling of voice but this has not affected the essence of the information provided by participant.

3.6 DATA ANALYSIS

Data analysis was preceded by transcribing verbatim each individual interview. The researcher read through the transcripts to ensure authenticity as well as to fill in any gaps. This was followed by a thorough and attentive study of each interview transcript, highlighting frequently recurring words, ideas, and identifying concepts. The next step entailed forming categories out of this initial coding. This formed the initial coding process.

Subsequently, themes were sought linking the identified categories. In order to identify themes, analysed data was divided into four main sections: the first one looked at knowledge of clinicians; the second on effectiveness and the last two on enhancing and deterring factors to the use of natural family planning.

Validity was ensured by triangulation between recorded interviews, participant's transcription and field notes.

3.7 ETHICAL CONSIDERATIONS

Ethical approval was obtained from University of Navarre as well as Ekurhuleni health district ethics committees before data collection.

Initial telephonic consent was obtained from the participants and subsequently a written consent was not necessarily filled in by participants. Pseudonyms have been used to obscure identity of participants. Tape recorded interview and interview transcription would be safely stored by the researcher under lock and key only accessible to her. Participants were allowed to withdraw from this study at any time.

The researcher personally conducted the interview and none of the participants raised issues of power conflict between researcher and interviewee. There was no need for use of a trained investigator as a substitute.

3.8 TRUSTWORTHINESS

Trustworthiness refers to how valid and reliable are the research findings. Four aspects need to be looked at in order to respond to this.³⁸

Credibility describes how true and accurate are the research results.³⁸ In this study, the researcher used triangulation by comparing information from digital recording, transcribed participant interview and field notes.

Transferability refers to how applicable are the research findings to other context.³⁸ The findings are transferrable since they are similar to what has been reported in other context. Further, the richness of the phenomena is reflected in the context specific themes that have emerged from this study.

Conformability is to ensure that results interpretations are a reflection of what participants have to say and not influenced by the researchers biases.³⁸ In this study, the researcher's electronic analysis record

would serve as audit trail. In this analysis, four columns were created comprising: question explored; responses by the participant; codes; categories and themes. Words, phrases, sentences were highlighted in different colours for easy identification and back referrals.

Dependability is the possibility that other researchers would obtain similar results if the study were repeated by them. This talks to consistency.³⁸ The research processes undertaken is open to be subjected to review.

3.9 REFLEXIBILITY

*"A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions."*³⁹

The researcher is a medical practitioner specialized in Family Medicine and has great interest in natural family planning. She is presently undergoing accreditation process as Billings Ovulation Method teacher. She is aware of her in-depth knowledge of this method of family planning. She did not disclose this information to any of the participants in order not to influence their responses. She ensured that throughout the interview and analysis, she paid attention to what participants had to say, how they see and say it, and during the interview process clarified where participant's ideas appeared vague.

3.10 CONCLUSION

This chapter described the research design, its rationale and appropriateness for this study. It has provided background on the study setting, selection technique of participants and the processes of data collection and analysis. The interview protocol was guided by the research objectives. Ethical considerations and validity were addressed.

4.1 DEMOGRAPHIC DATA

A total of 15 participants consented to participate in this study. Five out of the 15 participants were males while the rest were females. Almost all participants are Christians; two had no religious affiliation and this information was not elicited in two others. The youngest of the participants was 32 years and the oldest 64 years. Number of years in clinical practice by participants ranged from one month to 34 years.

Below is table 3, reflecting academic qualifications and positions held, while the following section looks at profile of participants.

Table 3: ACADEMIC QUALIFICATIONS AND POSITIONS HELD

Pseudonym	Undergraduate Qualification	University/College	Highest Qualification	University/ College	Position
Belinda	MBCHB	CUBA / MEDUNSA	Masters	WITS	Family Physician
Petrus	MBCHB	CUBA / MEDUNSA	None	N/A	Medical officer
Mabel	MBCHB	MEDUNSA	None	N/A	Medical officer
Pamphos	MBBS	Ibadan - Nigeria	Masters	WITS	Family Physician
Christen	MBBS	Bulgaria	Masters	MEDUNSA	Family Physician
Bianca	MBCHB	Lusaka - Zambia	Masters	UP	Family Physician
Floyd	MBCHB	MEDUNSA	Diploma Palliative care	UCT	Medical officer
Berth	MBCHB	UP	None	N/A	Medical officer
Chayo	Diploma in Nursing	Baragwanath nursing college	BCur	UNISA	Professional nurse with PHC
Vero	Diploma in Nursing Diploma Community Nursing	Ann Latsky WITS	None	N/A	Professional nurse with PHC
Classen	MBCHB	MEDUNSA	Masters	WITS	Obstetrician Gynaecologist
Chamise	Diploma in Nursing Diploma in PHC	Ann Latsky	None	N/A	Professional nurse with PHC
Jade	BCur	UP	Masters	UP	Professional nurse
Jansen	Diploma in Nursing	Ann Latsky			Professional nurse
Frans	MBCHB	WITS	Masters	WITS	Obstetrician & Gynaecologist

MEDUNSA: Medical University of South Africa. Now Sefako Makgatho Health Sciences University (SMU)

UCT: University of Cape Town

UP: University of Pretoria, South Africa

WITS: Witwatersrand University, South Africa

MBCHB; MBBS: Bachelor of Medicine, Bachelor of Surgery

PHC: Primary Health Care

4.1.2 Profile of participants

Belinda is a 39 year old female, married and has 10 years' experience in clinical practice since graduation. She presently works as a specialist in one of the hospitals in the district. She describes herself as being open to all creeds but not affiliated to any. She is South African.

Petrus is a 35 year old male, South African, and works at one of the big clinics in the district. He is married and has 10 years' experience since graduation. He describes himself as a free thinker.

Mabel is 43 years old, single and a Christian. She has 14 years of clinical experience. She works at one of the big clinics at Ekurhuleni health district at the time this research was conducted. She is originally from Lesotho but has grown up in South Africa.

Pamphos is 48 years, married and originally from Nigeria with clinical experience spanning 20 years. He is currently deployed to render specialist services at one of the community health centres in the district.

Christen is 64 years old, a widow and South African. Her specialist services coverage includes the whole district. She is Christian and has clinical experiences of 32 years duration.

Bianca has been in practice for 28 years. She is a 53 year old married lady and offers her specialized clinical services within one of the regions in the District. She is Christian, from Zambia and also has qualification in Business Administration (MBA).

Floyd is 59 years, divorced, and has been in clinical practice for 28 years. She is deployed to one of the big clinics in the district. She is a Christian and South African.

Berth is 32 years, married, and South African. She has 7 years of clinical experience and works at one of the primary health care clinics. She is Christian.

Chayo is 62 years, single, has had varied experiences – clinical, administrative, and mostly involved in training at present. She is South African, Christian (Catholic) and has been working for 34 years.

Vero is a South African, married, 49 years old. She has been in practice for 12 years and works at one of the community health care centres.

Classen is South African, 42 years old and works as a specialist at the hospital. He has been in practice for 19 years. He describes himself as being open to all creed.

Chamise is 49 years old and has been working as a professional nurse for 5 years. She is South African, single and a Christian.

Jade has been working for 26 years, single, female, 50 years old and South African.

Jansen is 36 years, married and South African. He is a recent graduate with only one month of clinical experience. He is a Christian.

Frans is 34 years married South African and works as a specialist in one of the hospitals. He has been in clinical practice for 10 years. He is a Christian.

4. 2 THEMES

The researcher grouped the themes in a way that responds to the objectives of this study:

- a. To explore clinicians' knowledge of types of natural family planning methods;
- b. To describe perceptions of effectiveness of natural family planning methods;
- c. To identify factors that enable clinicians to offer natural family planning methods;
- d. To identify factors that deter clinicians from opting for natural family planning methods.

4.2.1 Clinicians' Knowledge of Natural Family Planning

4.2.1.1 Awareness versus being informed

It has been an eye-opener to hear what participants had to say regarding this subject viz what clinicians' know and how informed they are or not regarding natural family planning method and the types available. Natural family planning has been described in diverse ways by interviewees:

".....monitoring their menstrual cycles, knowing which times to have sexual intercourse, sexual engagements.... includes not using any medical or drug methods or barrier methods....."

"..... The time period after your menstrual cycle that you gonna say one is safe."

"....using the body's physiological mechanisms to prevent pregnancy...."

"...natural means mechanical; artificial, hormonal...."

".....Natural family planning is where a woman does not use a scientific method on their cycle to fall pregnant or to prevent pregnancy....."

"...so basically you don't use any medication, you don't use any device with natural planning so you are relying on physiology as to say to track when you would be fertile...."

"....Natural family planning for me is both partners understanding the number of kids they intend to have within this family, and understanding the sequence... what I'm trying to say is at which gap they're intending..."

“.....no hormones are introduced into a woman....”

Clinicians mentioned the following as types of natural family planning methods:

- a. Abstinence
- b. Counting days to determine fertile period of the woman then abstinence from intercourse
- c. Breast feeding or Lactational Amenorrhoea (LAM)
- d. Rhythm
- e. Basal Body Temperature (BBT)
- f. Monitoring of cervical mucus thickness
- g. *Coitus interruptus* (withdrawal method)
- h. Calendar method
- i. Penis-thigh sex
- j. Roman law

Most of the participants could not volunteer any information regarding which of these listed methods are old and which ones are modern. Those who did give some information indicated abstinence, breast feeding, and *coitus interruptus* as traditional methods while Pamphos mentioned monitoring vaginal mucus and calendar methods as modern; for Christen, it is BBT.

All the participants except Chayo, who is involved with training, affirms that nurses and doctors are aware of NFP but are not informed. Classen puts it this way:

“Doctors,I think most of them are aware but when now you get a client that you have to then advise I think that’s where we would be caught. Because now, that client will be asking you questions that probably you may not have answers for, you know; how reliable it is; and what are the factors that you know may affect its effectiveness, you know; yeah and stuff like that.“Generally, nurses would also do badly....”

Regarding awareness by doctors, Chamise has this to say:

“..I think they are aware but my understanding is that they are aware but cannot apply the information. If you can’t apply what you have been trained or had been informed, is that you still lack information because if you knew how, you would apply...”

All participants agreed that doctors and nurses are aware but not informed on this subject.

“...To be honest, you know we take things for granted, I don't think they know...” I think we are ignorant. We, you know, we take things for granted, thinking that we know, while we don't know... We don't”. You know if you were to ask me to give you facts, I may not be in that position to give you.....”

4.2.1.2 Training

Training has been a broad theme that participants have alluded to. The interview question differentiated formal from in-formal training, that is, personal studies. NFP does not form a stand-alone topic of lecture in the medical and nursing curriculum says Petrus. It was *“hinted as a passing-by statement”* and it is a general affirmation from almost all participants except Chayo who is involved directly with training. It is glossed over as that family planning method that is old fashioned, not effective and therefore should not be an option for patients.

.....“In the olden days, this is what people used to do. These hormonal contraceptives were not there but people used to still be able to space their children accordingly because they used this.....”

The consequence is that in clinical practice, clinicians transmit what they have been taught - that NFP is ineffective and therefore could not be provided as an option for reproductive health care. None of the participants have done any formal course on NFP. Christen and Chayo did attend some workshop when the national guideline was implemented, but NFP was discussed as one more option and not in detail.

Petrus and Pamphos indicated that they had done some personal readings in order to keep up to date with latest trends on the different options of family planning.

Exclusion of in-depth training on this subject in the medical - undergraduate and postgraduate - and nursing curricula has been related to professional culture. We transmit what we have been taught, practiced and experienced. NFP in medical sphere is looked upon as old fashioned with no documented evidence and improper of modern medical practice. Besides, it is not advocated for as a national policy. Participants affirm this as part of the reason why it is no longer focused on during training nor practiced. Chayo who is involved in training and Christen who was involved in drafting the national contraception guideline, are aware that it is part of policy, although not advocated for actively. This exclusion has been attributed to the context of high prevalence of HIV in the country.

Belinda says that medical training has been conditioned; it is geared towards curative care and meeting patients' demands instead of prevention or promoting healthy living.

“... Maybe the way our training is geared towards, is geared towards treating and even the obvious contraceptives we know that it's obvious its preventive proof but is more of medical you must give something to, to, to the...I mean even if you are seeing a patient who is infertile if you just give eh the advice to say... she still wants you to give her something like but... because I think we have been conditioned to say but you.. Just educating someone you feel like you have not really done anything...”

Belinda and a few others also attribute exclusion of in-depth lecture on NFP from the medical and nursing curricula to perceived lack of effectiveness. There is a professional culture of transmitting to junior colleagues personal experiences or transferred experiences of failure, biases and prejudices says Belinda. Jade adding on, alludes to the fact that our training is influenced by the perception that women or the community are illiterate.

An all-inclusive in-depth lecture on all family planning methods - natural and artificial - has been suggested by most participants as crucial part of medical and nursing curricula to ensure completeness in medical and nursing education, provide a more balanced approach to family planning information and counselling, as well as presenting holistic options of choice to patients.

“...I think it can be a vital part of the curriculum. Also, when you know just as an opposite of what is known, what is conventional. Also, present this other side of things. You understand? Just emphasize it a bit more. Not in passing, just say maybe a line or two – ah, there are other methods, etcetera – because now, it looks like it has always been relegated to the etcetera of the information. Ah, there is this method....and etcetera....eg natural family planning. So even to be given a bit more space; I don’t think it’s a bad idea....”

Training is key because being well-informed empowers says Mabel; training that would inform one on how the method works, on their effectiveness, would change attitude, says Pamphos. Chayo mentions that doctors usually do not attend in-service trainings and therefore they are likely to be less knowledgeable about NFP. Christen alludes to the fact that since family planning is done by nurses, doctors may not feel a push to know more about it. Training heightens knowledge and will be helpful so that people are not denied choices.

“....they go to family planning and they are offered either the pill or injection. And what I’ve noticed, which I do not like is that patients are not given information these days. I don’t know whether it’s because of the work load...clinicians are not giving adequate information to patients also because they do not know....”

Patients opt for a pill not so much because of information given, but because the neighbour is using it.

“..... And they said, “No, this sister just said that I must choose, and by the time I went there, a friend of mine had been using whatever, maybe the pill, then I went and asked for that pill.”.....”

When participants were asked about what they would do if a patient asks for information about NFP, their responses were amusing. Belinda is comfortable logging onto the internet in the presence of patient, would consult the obstetrician or the sister who works at the family planning clinic. Although none of the participants knew of a resource centre or person accredited to provide NFP education, they would either refer the patient or go search for the information by reading up or using the internet. Therefore lack of knowledge or non-availability of information resource is not limiting.

Belinda lists some benefits of training as: dismantling negative perceptions, making informed decisions, enhancing competence, building convictions from personal experience as opposed to transferred experiences. You use experience to convince. It improves knowledge especially if evidence based and would influence practice. Training creates awareness and knowledge of NFP and thus enhances the possibility of presenting it as an option to patients.

4.2.2 What is the meaning of effectiveness of NFP for clinicians?

Effectiveness has been a constantly recurring word throughout the interviews. Although frequently repeated, it is a concept that appears to be vaguely understood. One participant describes it as:

“....a good contraceptive...as long as it prevents pregnancy. That’s one thing because our main aim is to prevent pregnancy. So, if it prevents pregnancy it would be doing a good job...”

It is the main reason why a patient would like to opt for it or the clinicians would offer it, and that would be a motivation for a formal course.

All participants admitted to being ignorant of the current evidence around effectiveness of both natural and artificial methods of family planning although no option is 100% effective, they say. Artificial contraceptives are generally taken as having higher effectiveness.

Belinda describes certain myths that fertility improves with intake of certain types of food such as peanuts; eggs; Mageu, a type of traditional African drink in South Africa.

Petrus outlines other factors which could affect effectiveness of NFP such as importance of selecting the appropriate patient who needs to be focussed, responsible and motivated and is more applicable to married couples because of being in stable relationships; consistent user due to being a cumbersome method; the fact that NFP does not take care of a woman with irregular cycle; context of infertility creates inner motivation to be committed to the method. We need to educate and give adequate information to our community which has a high illiteracy level.

Mabel brings in the idea that monitoring of patients increases effectiveness. NFP is an effective option especially for treating infertility and for spacing birth because contraceptives causes problems when a patient wants to get pregnant. Bianca explains that it is economically effective for the government because it is cheap - contraceptives are provided free for health care users in the public sector, South Africa -; there would be no stock outs in supply for the patients; and failure would be due to an incorrect

use of method. Mabel also highlighted the fact that it is difficult to compare the two methods due to the fact that there are basic technical differences between them.

Floyd alludes to the fact that effectiveness in achieving pregnancy should take into consideration frequency of intercourse. The more frequent, the higher the chances of not missing the fertile period. Effectiveness would also depend on correct use which would assume that the person is well informed. Education plays a role in all forms of family planning methods. For Chayo, literacy levels determines how much the patient understands given information. Chayo was quite insightful when responding to the question, “do you think that NFP is an effective method to achieve pregnancy?” This is what she had to say:

“....You know, unless we actually start teaching the method at primary school,Unless we start encouraging couples to attend family planning and we start it at a very young age so that as they grow up they know that when we talk about planning the family it's both of us who must actually go to the family planning..... ”

Classen highlights the importance of the user, quality of training received by user and counselling as determinants of effectiveness. It is risky with our population, you have to count with partner cooperation as well as serious commitment. So effectiveness for him means how patient uses it. How patient uses it is affected by literacy level:

“.....someone who would understand, someone who will understand cycles, someone who would follow instructions, someone probably with a predictable menstrual cycle. Yeah, regular cycles because you need to understand that so you... because I believe there might be some mathematics that might come into play when you calculate fertility so I don't think it's for everyone not intelligent you know.....”

We are serving a population that is illiterate and ignorant says Jansen. For Chamise, effectiveness is best method given and then used correctly. It means selecting the best method for each age group.

“...For example, anyone who is 11 and 18, I cannot send away. I wouldn't advice oral contraceptives. My reasons being 11 and 18..being those are people who are still experimenting with life....”

There is a general acceptance that NFP is an effective option for achieving pregnancy but not for spacing out birth or postponing pregnancy, except if the woman knows her ovulation time, then she would avoid intercourse, says Jade. In avoiding pregnancy, you need someone who understands the cycle. If properly done, it is an option for use by those who want to space out birth of their children. Although, it is contradictory to affirm use for spacing birth but not to avoid pregnancy because birth spacing already entails avoiding or postponing pregnancy.

Mabel brings up a clear problem: the clinician first needs to be empowered in order to give the correct information.

“..... What if you fall pregnant? So I need to empower myself first before I can say do it but we need to know exactly when to start?.....”

4.2.3 Can NFP be an option?

Themes around reasons to offer NFP:

4.2.3.1 Method related

NFP has been described widely by participants as natural, non-hormonal, with no external interference with normal body function and as a consequence, free from varied side effects experienced by patients with artificial contraceptives. Besides, for Belinda and Bianca, it is free. Bianca was more practical in her reasons because she says NFP is cheaper and economical both for the patient and the government. There would be no chances of running out of stock. Also, making it part of national guideline enhances uptake both by patients and clinicians.

This is what Jansen had to say:

“...There is no waiting period where you can wait for this many weeks after the injectable in order to conceive so which means yeah I can advise patient to use the natural one.....”

4.2.3.2 Patient related factors

For Belinda, NFP would be an option for patients with serious side effects to the contraceptive methods; or have contraindications due to certain co-morbidities; and as last option if a patient must be given something. This opinion stands for most interviewees. Pamphos highlights the fact that it would be an option for high risk patients because it is a natural method with no side effects.

The clinician would be more comfortable to discuss NFP as an option if it is initiated by the patient.

Other patient demographic factor such as age would prompt the clinician to offer NFP. It would not be an option for the young - less than 30years; 30 to 40 years old are aware of the different options and this could be one of them; late 40s would preferably go for NFP because they want to know when menopause starts. In addition, this last age group already experience reduced fertility. Using NFP would thus reduce pills burden.

Petrus and Christen passionately indicated that it is a possible option for married couples who are assumed to be more responsible and in stable relationships. He has recommended it for cases of infertility.

Petrus underlined the role played by level of literacy and patient motivation. We live in a society where what is easy, comfortable, convenient has become a priority. Family planning, child spacing, is not seen by patients as part of health care. Education becomes crucial in order to increase reproductive health awareness. Mabel also affirms that a patient who requests for it and is willing to use it is an ideal candidate for this method.

Mabel and Berth brings out a sensitive issue, Creed. NFP offers an option that satisfies patient's beliefs, cultural practices and preferences as opposed to artificial methods.

".....in other religions they are against the use of contraceptives so using the natural way is an advantage for you when it comes to religious background....."

4.2.3.3 Training

Training would provide information, empower, and give confidence. Most interviewees' further referred to the fact that access to published information on effectiveness would serve as convincing evidence based knowledge for oneself and patients.

"..... I'm not saying credible. I don't know where we think that there are we can quote. To say this is what I read in whatever journal of what not and study has been done, they have checked this woman and actually it works and what not. Something that you can be confident in quoting to say this is effective, this was done compared to whatever. So I think if there is information that is speaking towards effectiveness....."

4.2.3.4 Empowerment versus Dependency

Petrus and Christen highlighted the importance of providing women with other options other than artificial methods. Such information empowers them to manage their reproductive health in their different stages of life instead of depending on prescriptions from clinicians because they think that they know what is good for them.

".....It empowers a woman to know about her body I should think....."

"..... if I were to have more information about it, that would probably empower me to be able to say, "No, in fact we've missed out on this type of method. This would have worked in a situation like this or that....."

4.2.3.5 Clinician oriented

Classen laid emphasis on careful selection of the appropriate patient who could understand and is committed to the method.

“....I think there’s not much that would prevent patients from using it, but we just need to select our clients carefully. We just make sure that they do understand and they are agreeable with whatever risks that are pertaining to it but I don’t see any reason for not offering them...”

Chamile, besides affirming the above, talks about taking into consideration patient’s life style, medical and mental health.

“..... Let’s say for example, a client with mental retardation; do you think I’ll be able to explain the natural? These are the days and then the understanding happens in one day. Now, if it’s going to happen, it should be.....progressive, sequential, very slow, re-analysed, revisited.....”

Also, if training shows higher effectiveness says Classen and other participants, it would be a reason to change beliefs and practices. Further, he suggested exhausting all possible barriers or objections a patient could have to artificial methods before doing a thorough counselling on NFP. Nevertheless, patients should be provided with comprehensive information on family planning methods without excluding any.

“...It’s part of family planning...Yeah, that’s why I said to you earlier, in fact it opens a window, an opportunity, where it’s like...and we might be caught, you know, that really wants to explore. As health care workers, we should be ready to offer them proper information. So it opens that opportunity for us to really sit down and very carefully.. We need to know what we are talking about if we offer it to a patient...”

4.2.4 What deters clinicians from providing natural family planning?

4.2.4.1 Attitudes, Beliefs and Practices

Belinda says there is no documented evidence of effectiveness and NFP is widely perceived as old fashioned by clinicians. She enthusiastically shares her personal feelings that practitioner’s attitude or beliefs could deter recommending it. A practitioner who is not using NFP is unlikely to recommend it because she would feel not being consequent. Orientation of medical training towards artificial contraceptives has ingrained, deep seated, negative perceptions, towards anything natural.

“....I wasn’t convinced myself. We spoke about it but I wasn’t convinced so I ended up saying anyway this would work if you and your partner work this together. Yes, I gave some information but I myself was not convinced. I thought I didn’t have sufficient information..”

From Classen, training in NFP is a neglected area of medical education which impacts on patient care. There is a need to engage in this topic. Why are we not considering it? If it is evidence based, besides providing knowledge, it would change practice.

Almost all clinicians insisted on being trained, being informed, which would change their attitude, belief and practice.

"..... It's actually something that you know... it brings... it makes one to ponder. What information will I give somebody if I'm not as well-informed enough, when it comes to that? So I am interested to know more on that. I am. I'm being honest....."

4.2.4.2 Paternalism

This is enshrined in traditional medical training and practice and it is still transmitted to younger generations of medical and nursing professionals. By paternalism, the clinician thinks he knows what is best for the patient and this is what we should offer them.

"...Taking HIV into account, I don't think in our setting in South Africa it will be a good option, you understand? It's because we want to...because we struggle with people having bad habits, you understand? Risky behaviour is still very high so encouraging this form of, you understand, way of doing things will be more disastrous, will be more suicidal to our communities. It's good to know about it but in the practical sense, I think it's a bit risky...."

".....Maybe because I don't have the knowledge and I think it's not 100% safe. For example, breastfeeding, we know definitely you can fall pregnant while you are breastfeeding so and you don't want them to have babies so close together so that's why I would say I'd rather add additional protection to it. Just because it's not 100% safe...or 100% preventative..."

".....I think in South Africa, where we already have a lot of unplanned pregnancies, it is quite a big thing that ladies should be on family planning to prevent all these unplanned pregnancies and babies that can't be cared for. So I want something reliable that you know if you're going to do then it's gonna work... I'm not sure that it's not gonna be so effective in the populations that we work under"

Floyd adds that use of condoms ought to be a way of life due to life style behaviour in our communities and this would ensure reduction in sexually transmitted infections.

".....Because of ignorance, I don't think it's important because many people will fall pregnant if we use the natural one. No, they can just teach us to have more information about it, but we must not encourage people to use the natural one because if we are going to encourage or educate the community about the natural one, we'll have a high number of teenage pregnancy..."

4.2.4.3 Method related

Belinda affirms that NFP cannot be applied if a patient's menstrual cycle is irregular. This has been mentioned by a few of the participants.

Petrus among other participants like Jansen affirm that NFP would expose patients who engage in risky sexual behaviour to increasing rate of sexually transmitted infections (STIs), Human Immunodeficiency Virus (HIV) infection and teenage pregnancy. Jansen seems to suggest that there is a higher risk of infection with NFP.

Chayo and others have noted that it is a method that requires a lot of education and as a result, compliance would be a big issue. Also, some participants mentioned that it needs monitoring more than artificial methods.

4.2.4.4 Patient related factors

NFP is too engaging for a woman overburdened with socioeconomic problems or care free adolescents, described Petrus, and Jade added on saying that our women depend on their partners for livelihood who expect sexual satisfaction in return.

“...In the environment that we are living in, you know our women are not...are not what...are not free. They are not liberated to take control of their bodies.. Because most of them are not working so they rely on the, what you call partner to give whatever they need. So sometimes you know that you’re supposed to abstain from this and then if a man comes, some women can’t say they don’t have the right to their body. Yeah, it is a disadvantage because it’s not safe. You are not protected from HIV and STIs..”

It would therefore not be an option says Petrus for young couples / young adults, adolescents, and those in unstable relationships. There is already poor compliance with artificial methods which are easy to use and how much more NFP that needs more commitment, he belaboured. Mabel refers to incorrect use, and Pamphos, to lack of commitment and patient education.

Christen and Chayo explains the need for partnership / cooperation in the partners especially the male partner who many times do not accompany the female partner to family planning clinics. Besides education, NFP requires a lot of counselling in order to address patient’s possible fears of getting pregnant unlike artificial method which she described as a “*touch and go*” practice of administering it.

4.2.4.5 Gender power imbalance

There is also issue of power imbalance among gender, the woman cannot deny sex demands made by her partner.

“.....Most of our people are illiterate and ignorant so a person can fall pregnant. Maybe the husband can say, ‘now I want my rights, my conjugal rights,’ so the woman maybe cannot say no, because in Africa, a man is the one who is leading....”

4.2.4.6 Professional culture

Belinda explains this as professional expectations in practice of contemporary medicine which deals with evidence based information and techniques and not natural. Suggestion of anything natural as form of treatment makes the doctor's practice questionable. Also, one perpetuates biases, prejudices, transferred by colleagues. Pamphos explains that pregnancy, is the result of failure of method and gives the clinician a feeling of having failed the patient. In order to safeguard against this, a dual protection - NFP combined with an artificial method - would be preferable.

Patient's responses or feedbacks or experiences with options tend to limit your practice in the future, for example, side effects from a certain method. Experience in NFP will enhance offering it as an option in addition to patient's acceptance of it. You use experience to convince patients.

All participants affirmed that their cultural beliefs, religious affiliation does not influence practice of NFP because it is part of medical ethos to do what patient wants.

4.2.4.7 Illiteracy versus advocacy

Our population remains ignorant of NFP because there is no advocacy says Pamphos.

This is what Christen had to say:

"....So yeah, it will be helpful, because I think we are denying people choices. You can only choose if you know. In fact, it should start from national because as much as they write these things they promote everything except the natural method...."

Christen points to the fact that there is no advocacy for this method by clinicians. Promoting it would require knowledge, passion, drive and the professional who could mobilize the rest as well as also political goodwill. Health advocacy also includes health promoters, and community health workers, who also need to be trained. One needs to balance giving options and the risks involved. Promotion of NFP should also start from national government who are the policy makers.

"...So you know when you promote something, it raises awareness and also, it makes you curious to know more because it's something that you need to promote...."

Petrus highlights the fact that our policy needs to sing a consistent message not constant flux of information which confuses our illiterate population and policies should not contradict each other.

"....I don't think at this stage as a country with 90, 90 programs we want to achieve, we can be introducing such a gambling..., you know?. So, our people, knowing the level of illiteracy, you'll confuse them... You remember these programs we've had before?; your ABCs, test and treat at the same, all these programs. So people get confused. You see this? Now you're changing! Which is which?..."

Jade also agreed that having it in the guideline would enhance practice and patient education.

NFP is not included as reproductive care option post-delivery on the ante-natal card (ANC) booklet and maternal guideline. ANC consultations would be a good opportunity to promote this method, if only it was included.

Absence of policy or rather promotion from national, is regarded as indication of non-acceptance coupled with lack of trained professionals, biases and prejudices. The result is that NFP is scarcely discussed by clinicians with patients. Very few patients would ask for it as an option because they have never been informed by clinicians.

“....Because we’ve stuffed them with the hormonal methods. We’ve only spoken to them about those things. We’ve never let them explore what used to be practiced in the olden days. And I’m using the word ‘stuffed’. You know when you give just that information you want to....it’s like you had an agenda...”

Most clinicians have indicated that patients do not ask for NFP because they are ignorant about it, not educated or informed.

Chayo introduced an interesting twist to the discussion by suggesting early education of children.

“...It’s to start talking about it to children at a very young age.. from grade.. I think from grade seven at primary school....Then as they grow up they will actually be having that thing in mind to say, ‘before I plan, these are my options’; I do have an option of natural and this other one as they grow up making decisions and then they will actually decide on which one do I want...”

Advocacy should go beyond early education of females but should include males says Chayo.

“.....We need to pay attention to both methods, full attention; fully talk about the natural one and the unnatural one, but start talking about it at a very young age and also try and start talking about family planning to male children...”

5.1 INTRODUCTION

This study aimed to understand perception of clinicians regarding using natural family planning as an option to space out birth, postpone or achieve pregnancy. The interview questionnaire was focused on responding to the outlined objectives of knowledge of types of natural family planning methods, their effectiveness and motivations for offering it to users or not.

Some of the themes deduced from participants' responses seemed to cut across the four major areas explored. In order to understand the meaning of this phenomenon for the participants as well as ascertain their relationships, the themes have been re-grouped together.

Policy, effectiveness and professional culture appears to be three overarching major themes (figure 1).

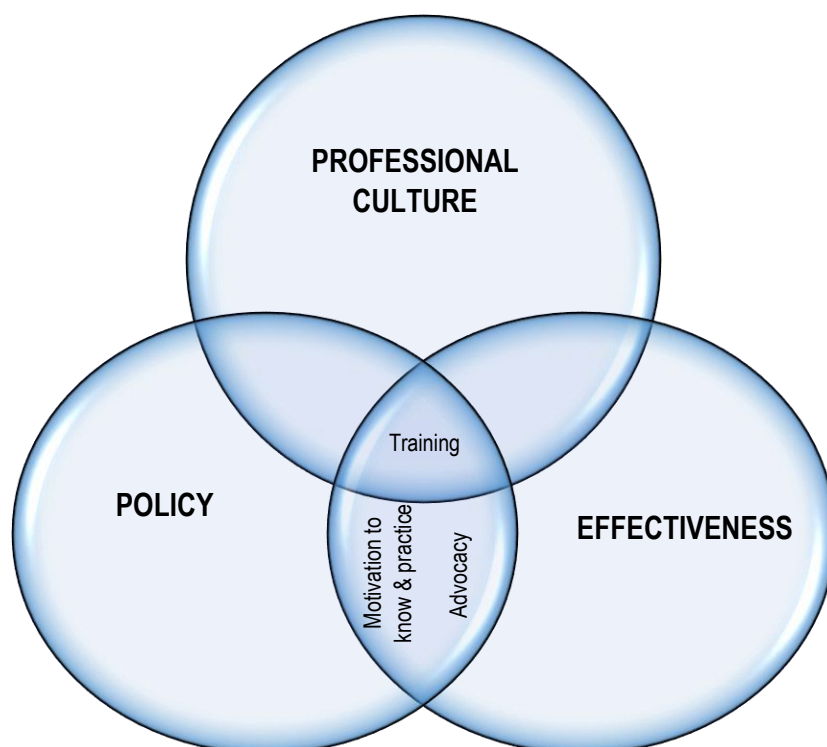


Figure 1: Three major Themes of Influence

5.2 POLICY

According to Centres for Disease Control and Prevention (CDC), policy is defined as *“a law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and other institutions.”*⁴⁰

Looking at policy from the context of public health, *“policy development includes the advancement and implementation of public health law, regulations, or voluntary practices that influence systems development, organizational change, and individual behaviour to promote improvements in health.”*⁴⁰

Regarding health policy, World health organization (WHO) refers to *“decisions, plans, and actions that are undertaken to achieve specific health care goals within a society; it outlines priorities and the expected roles of different groups; and it builds consensus and informs people.”*⁴¹

Health policies cascade down to coal face in forms of practice guidelines. All the participants, except two, pointed to the fact that NFP does not form part of the South African national contraception guideline and this explains, according to them, its non-inclusion in medical and nursing education as well as clinical practice. South African government developed and adopted a new NCCG which includes modern NFP with the aim of aligning clinical practice with international evidence based standards, but there has been no advocacy for its practice.

5.2.1 Advocacy

Advocacy from the national government would help create awareness amongst the population, reflect political willingness and sense of ownership. This would encourage inclusion in medical and nursing education, a sense of being in line with what is permitted by regulation and therefore permissible to practice and promote. Patients are ignorant of NFP because neither the government nor health care professionals talk about it. This has been shown in the study by Stanford et al.³² Advocacy from the national government would also impact on effectiveness because the population would be driven to adhere to what is nationally acceptable. Advocacy provides opportunities to educate, counsel and equip patients to become responsible experts of their own reproductive health instead of dependency on prescriptions from clinicians. This would reduce burden on health care services. Choi et al³² also indicated in their systematic review of literature, that NFP is not advertised in the media unlike the contraceptive methods.

In the 1980s in the United States, Mrs Leslie Carol Botha, launched a comprehensive menstrual health education program for girls 13 to 17 years of age at eight different restorative care homes for at-risk girls.

Her aim was to teach them to learn about their basic fertility through charting. After three months of charting, these girls saw clear patterns emerging from their charts and became aware of what she described as monthly falling into the “*rabbit hole in their minds*,”⁴² that is, “*increased anger, disruptive and self-destructive behaviours, suicidal ideation, and drug and alcohol cravings*”⁴² due to hormonal shifts they experience. This was a discovery of the relationship between their cycle and their moods. From these charts, these girls became mindful, self-aware and understood that such phases are normal and passing. Such understanding empowered them and made them become in control to handle these phases in their cycle and thus change from their sexual behaviour. Mrs Botha is internationally recognized as an expert in women’s hormones and behaviour. Her work and research now focuses on the significance of hormone cycle and its profound relationship to a woman’s psyche.⁴²

Dr Hanna Klaus adopted this concept which formed the basis of Teen Star program. This program help teens through understanding and experiencing their body’s fertility patterns; teaches decision-making and communication skills in area of sexual behaviour such that they are in control and not victims of their hormones, to reject peer and media pressure and discover good moral values.⁴² According to Teen Star program impact analysis record in 2014, virginity was maintained by 97-99% of participants, 40-50% of previously sexually active females and males (30-50%), discontinued sexual activity.⁴³

Teen Star abstinence-centred comprehensive education program on sexuality in adolescent pregnancy prevention in a high school in Santiago, Chile, was evaluated in a randomised controlled trial by a third party, a non-profit research organization in the United States - Child Trend. Child Trend focuses on improving lives and prospects of children, youth and their families. The result was quite astounding. The program was effective in reducing pregnancy rates in these adolescents, 15 to 16 years when they entered the program. Properly trained teachers in the school were effective monitors during application of the program.⁴⁴

In another randomized controlled trial, the effects of application of Teen Star educational program in elementary and middle school students between 12 and 18 years in ten institutions, was compared to sexual education usually taught by schools. The result was reduced sexual activity, delayed onset of sexual activity, and increased positive attitudes of the students toward abstinence.⁴⁵

5.2.2 Training / Empowerment

All participants referred to training, being informed, being empowered in order to inform and empower patients. Participants have expressed it by using the word awareness most of the time and some other times being informed.

Awareness, being informed, knowledge appears to be used interchangeably. Hasa,⁴⁶ summarised definitions of awareness from Oxford and Merriam-Webster dictionaries as “*perceiving, knowing, feeling, or being conscious of events, objects, thoughts, emotions, or sensory patterns*,”⁴⁶ while knowledge refers to “*facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject*.”⁴⁶ Trevethan⁴⁷ described the elusiveness of a clear distinction between awareness and knowledge as awareness seems strongly associated with knowledge in its descriptions. As a partial resolution, he ascribed awareness at the lower pole and knowledge at the higher pole of a knowledge continuum. Drawing from Trevethan’s model of distinguishing these two terminologies, it is clear that clinicians have heard of natural family planning, have some facts and in most cases misrepresentation of facts and this could have created great limitations in acquiring personal convictions, practice experience and therefore inability to search further. For them, NFP has not been included in the NCCG and as such there is no push for professional competence in clinical practice in this area. Also, lack of knowledge of NFP by clinicians has been reported widely in scientific literature.^{1-4,11}

Knowledge acquired through an in-depth formal training empowers and boosts personal confidence. Participants have rightly expressed the influence knowledge would have as building convictions, dismantling misconceptions, opening horizons for experiences as well as changing attitudes towards NFP. University of Navarre Spain has published the impact of introducing an elective course on Sexuality and Human Reproduction as part of the degree in Medicine and Health Sciences faculty of the university to address the identified knowledge gap or misinformation regarding NFP and human sexuality in medical graduates. This course was designed with a multi-disciplinary approach consisting of lectures drawn from Preventive Medicine and Public Health, Psychiatry, Anatomy and Embryology, Gynaecology and Bioethics. 95% of students who went through the program from 2004-2007, affirmed a positive change or strengthening in their opinion and attitude towards NFP.¹⁷

5.2.3 Motivation to know

Motivation is a behavioural change which is not unique to NFP but applies to contraceptive methods as well as life style modifications recommended for chronic disease conditions. Participants have alluded to the fact that *inherent reasons* that would motivate them to want to know more about NFP revolved around

competency. They feel incompetent to give appropriate and adequate information to those patients who ask for NFP nor are they prompted to initiate discussions on NFP as part of reproductive health care. Beeman² highlights in his narrative review of literature on NFP that lack of preparation of clinicians on this topic reduces likelihood of their offering this option to patients.

Training that would offer content around scientific bases of NFP, their effectiveness compared to AFPM would be quite enriching and would prepare professionals with *holistic rather than reductive approach* to reproductive health care. Clinicians would be able to offer patients options; and patients in their turn would be able to make better informed choices about their reproductive health. This holistic approach would also address the needs of cultural and religious diversities of health care users. NFP, which is essentially fertility awareness, helps the woman learn about and monitor the fertile and infertile times of her menstrual cycle and such information empowers towards “*self-knowledge, health reasons and family planning purposes*.”¹⁴ NFP is not merely family planning but a lifestyle - “*NFP lifestyle*”- which prepares “*men and women learn to live with, understand, and appreciate their fertility*”; to fully integrate fertility into their relationship.¹⁴

5.2.4 Motivation to practice

Besides competence as described in the preceding paragraph, other factors would influence motivation to practice NFP as enunciated by interviewees. Motivation to practice would be at both internal and external levels.

5.2.4.1 Internal

To feel personally *empowered* through undergoing appropriate and adequate in-depth training would create competence and personal convictions in clinicians. The impact would be greater advocacy and therefore awareness among health care users. This would dispose clinicians to offer NFP as an option and more patients would ask for it. At present, patients do not ask for NFP due to lack of awareness. Beeman² and Choi et al³² have described the obvious, that is, patients would not ask for NFP if clinicians do not routinely talk about them.

5.2.4.2. External

Patient selection has been a critical issue and this refers to identifying patients who would effectively use the method because of their particular circumstances. This includes patients in stable relationships - married couples; those who have expressed internal motivation and therefore responsible; and those whose medical risks precludes use of AFPM. This finding is in keeping with that reported by Snowden et al.¹

Participants also referred to other patient characteristics of age - middle age group who are then more concerned about knowing when menopause sets in; and literacy levels - those who have not been exposed to formal schooling at an advanced level or no schooling. The study done in Zambia on factors that influence utilization rate of NFP has shown that married status; number of children (more than 1-3 children as opposed to none); decision making as couple; knowledge of NFP and religion are positively associated with utilization of NFP while age of patient, education level showed no influence.⁴⁸ In another descriptive survey of certified nurse-midwives knowledge and promotion of lactational amenorrhoea and other NFP methods, patient selection factors for NFP were education and motivated married couples while low socio-economic status, single and sexually active women as well as sexually active teens were factors of vulnerability in their population that obviated their promotion.^{49,50} On the contrary, The effectiveness study in China by Qian et al,²⁰ illiteracy was compatible with use of BOM and WHO studies have shown that illiteracy does not obviate use of NFP.¹⁷

Patient context would refer to those patients who have identified medical problem and NFP serves as best treatment option - treatment of infertility. Snowden et al¹ identified patient circumstances such as high risk patients and motivated couple as important patient determinant factors of effectiveness, but patient context such as infertility was not an aspect of their study.

Clinicians have attributed their resistance to practice NFP to *patient-related context* of risky sexual behaviour of the community - multiple sexual partners in adults and experimental sexual life style in adolescents. These factors are compounded by gender power imbalance in the sense that women in difficult socioeconomic positions tend to rely on the male partner for sustenance. As a result, they have no control over sexual demands made by the partner. In spite of stated fact, other studies have shown that NFP has been found to be effective in vulnerable populations of other countries if well taught and user applies the method appropriately.³³ Family Planning 2020 reports indicated that the high discontinuation rates in family planning methods by women has been linked to inadequate pre-contraception counselling.¹³

Knowledge, competence, motivates practice, and this enhances *being ethical* - providing complete and necessary information to patient. Interviewees have referred to the fact that clinicians do not offer NFP as an option for reproductive health care to patients due to the fact that they are also unlearned with regards to NFP, and therefore not equipped to navigate through questions that could be raised by patients. This denies patients of choices. Further, education empowers patients and increases the possibility of using the method effectively. In the interest of practice of informed consent, Manhart,⁵⁰ in his review of available literature on FABM, draws attention to the need for clinicians to be knowledgeable about all effective family planning options - mechanisms of action and effects on reproductive health.

NFP, because it is natural is readily *available* to users as opposed to switching from hormonal forms of AFPM to NFP which causes delay in return to fertility. Patients, when adequately trained, are in control of their fertility and would not depend on the health care system. NFP is also cost effective both for the government - AFPM is provided free of charge and sometimes health facilities experience stock outs - ; and patient - economic and time costs in treating side effects. The report from the China study has shown that NFP it is a method that is acceptable by the diverse cultural and economic background of the country due to its high efficacy, low cost and extreme safety. The comparative study between BOM and IUD showed higher pregnancy rates, use-related discontinuation and complications with IUD. NFP (BOM) has been introduced as a national programme in 1995 due to its unquestionable benefits.²⁰

5.3 EFFECTIVENESS

Effectiveness has been described by participant as selecting the *best method and method is used appropriately*. This includes selecting the best method taking into consideration the age group in question. Choi et al³² notes that clinicians do not offer NFP as an option because they underestimate their effectiveness, consequence of lack of necessary preparation. Other studies have demonstrated that NFP has similar effectiveness as hormonal contraceptives.¹⁴

According to the report on evaluation of effectiveness of natural fertility regulation program in China, knowledge of the method, motivated user and support from spouse has been described as important selection criteria for success.²⁰

According to participants' perception, NFP is not appropriate for patients with *irregular menstrual cycle*. Its use in this group of patients would definitely result in high failure rates. This perception is contrary to the modern methods of NFP which can be used irrespective of the nature of the woman's cycle. It reflects lack of knowledge of the methods.

Quality of patient education and counselling would determine patient adherence to method. Studies have shown that clinicians are not trained to play this role and again their personal biases would influence patient referral to an accredited teacher of the method. Besides, all the interviewees have indicated not having information of such resources. Snowden et al¹ in their study described quality of teaching and instruction received by the user; knowledge, attitude and practice of clinicians and other birth control providers as some of the factors that would influence use of NFP by the client and its effectiveness.

Participants have indicated that NFP would be an *effective choice for spacing birth* but would not be recommended for avoiding/postponing pregnancy. This seems a bit contradictory because child spacing essentially entails postponing pregnancy. It reflects lack of knowledge of the methods. Manhart et al,⁵⁰ in their review of literature on effectiveness of FABM, referred to misconceptions of family physicians in United States regarding not only effectiveness of these methods but their complexity or suitability for patients. Although one in 5 women express interest in these methods when informed, more than half of these primary health care specialists do not have the necessary preparation to offer it and support patients. The complexity of these methods are not any different from a patient who is managed for a chronic disease condition such as diabetes.

For effectiveness of NFP methods, *sexual behaviour change during the fertile period* of the woman's menstrual cycle is crucial, although not easy, it is worthwhile. This same strategy of behaviour change forms the backbone of patient care to reduce cardiovascular risks in predisposed patients such as quitting smoking, opting for nutritionally healthier diets, regular exercises.⁵⁰ The same care and concern should be applied to prevent contraception induced infertility and fatal side effects of hormonal contraceptive methods. NFP besides providing couples autonomy to decide whether or not to conceive, assists in diagnosis and treatment of infertility and other gynaecological conditions, as well as embracing the *"emotional and relational aspects of their sexuality."*⁵⁰

Influences of motivations to practice NFP have been alluded to in previous paragraphs.

5.4 PROFESSIONAL CULTURE

Hall's⁵¹ description of professional culture in his journal article articulates the lived experiences of interviewees. *"Culture is defined as the social heritage of a community, meaning ' . . the sum total of the possessions, ways of thinking and behaviour which distinguishes one group of people from another and which tends to be passed down from generation to generation . . . ' Each health care profession has a*

*different culture, including values, beliefs, attitudes, customs and behaviours. This culture is passed on to the neophytes in the profession, but it remains obscure to other professions.*⁵¹

Clinicians tend to pass on what they have been taught; transferred experience from senior colleagues; and experienced personally through practice. This includes values, beliefs, attitudes, customs and behaviours which have been negative regarding NFP. This negative perception has its foundation on perceived lack of effectiveness of NFP. This is in keeping with Snowden et al's¹ findings that clinicians could act as barriers to users who would like to access NFP.

Paternalism is an aspect of medical and nursing professional culture relating to customs and behaviours. Paternalism would mean that in medical decisions making, health care professionals exercise unilateral authority over patients because of the feeling that more good can be done by the clinician's judgement. One of the main reasons for this affirmation in this study has been high illiteracy level in the community by participants and as such they would not grasp the complexity of information regarding NFP. Further, there has been quite a change in policies relating to reproductive health; NFP would add to the confusion. In addition, patients exhibit a risky sexual life style behaviour - multiple partners and substance abuse - with consequences of unwanted pregnancies, STIs as well as HIV infections. These consequences would be exacerbated with introduction of NFP they extrapolated. No study has been done to compare rate of STIs and HIV with use of NFP compared to AFPM. If NFP empowers women and men to opt for responsible and mutually agreed sexual behaviour,¹⁷ the consequence would be a reduction in risky sexual behaviour and thus reduction in these infections.

Paternalism, characterized by appropriation of decision-making power is opposed to patient centred care (PCC), a primary approach to health care, which emphasizes the need to place patients' preferences, values, beliefs, psycho-physiological comfort, enhance their engagement, open communication which informs patient in order to take decisions, support, and co-ordinated care in the fore front.⁵² Further, this approach which brings in flexibility because health care is tailored to meet individualized patient / family needs and therefore increasing patient satisfaction and health outcomes, has become a measure of quality of health care.⁵² PCC and evidence based medicine (EBM) are not mutually exclusive but complementary. Clinicians should be trained to recognize and give importance to what is meaningful to the patient, to provide holistic information regarding all family planning methods - mechanisms of action, effects on reproductive system, effectiveness - so that patients could make informed choices. This promotes patient advocacy.⁵² PCC approach is a reflection of ethical standards of autonomy and self-determination;⁵² it is one of the core principles of family medicine, but there seems to be disconnect between theory and practice.

Scientific as opposed to traditional. During the last decade, there has been an explosion of scientific information and clinicians struggle to keep up to date. The growth in medical knowledge based on scientific evidence has been coined EBM. This concept has been defined as a “conscious and reasonable use of current, best scientific evidences in making decisions in treatment of each individual patient.”⁵³ As a consequence, there is a push to reject anything traditional, understood as not scientific. WHO defines traditional medicine as “the ancient and culture-bound medical practice which existed before the application of modern science to health.”⁵⁴ WHO, in its report on harmonizing traditional and modern medicine, points to the fact that both systems look at health, diseases and causes of diseases in the person from different approaches which should not be exclusive but integrated. Besides, modern NFP have over the centuries, acquired a strong robust scientific foundation^{2,14,20} unlike the traditional NFP methods which are no longer taught due to their lack of effectiveness. Unfortunately, many scientific reports on lack of effectiveness of NFP have been based on the journal article by Trussel^{6,29} which has been disqualified due to its highly biased methodology.

Medical and nursing education is directed towards *curative approach to modern medical practice*. Health promotion and prevention is not given their due importance. This has been worsened by greater patient awareness of their rights. Clinicians tend to favour patient’s demand for medication over preventing ill-health and promoting healthy life styles. Himmel et al’s⁵⁵ study on drivers of high prescription rates among general practitioners showed that satisfying perceived demand for pharmacotherapy is not associated with patient satisfaction. Instead, it could reflect “rationalization” for the clinician’s own uncertainty, an effective alternative as a “closing strategy” or a “short cut” that substitutes “a more time consuming, but satisfying, interaction between doctor and patient.”⁵⁵

5.5 CONCLUSION

Policy, professional culture and effectiveness identified as the three overarching themes in this study presents a uniqueness which could be attributed to the particular context of the study. These could be the broad aspects to be taken into consideration while proposing recommendations from this study.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

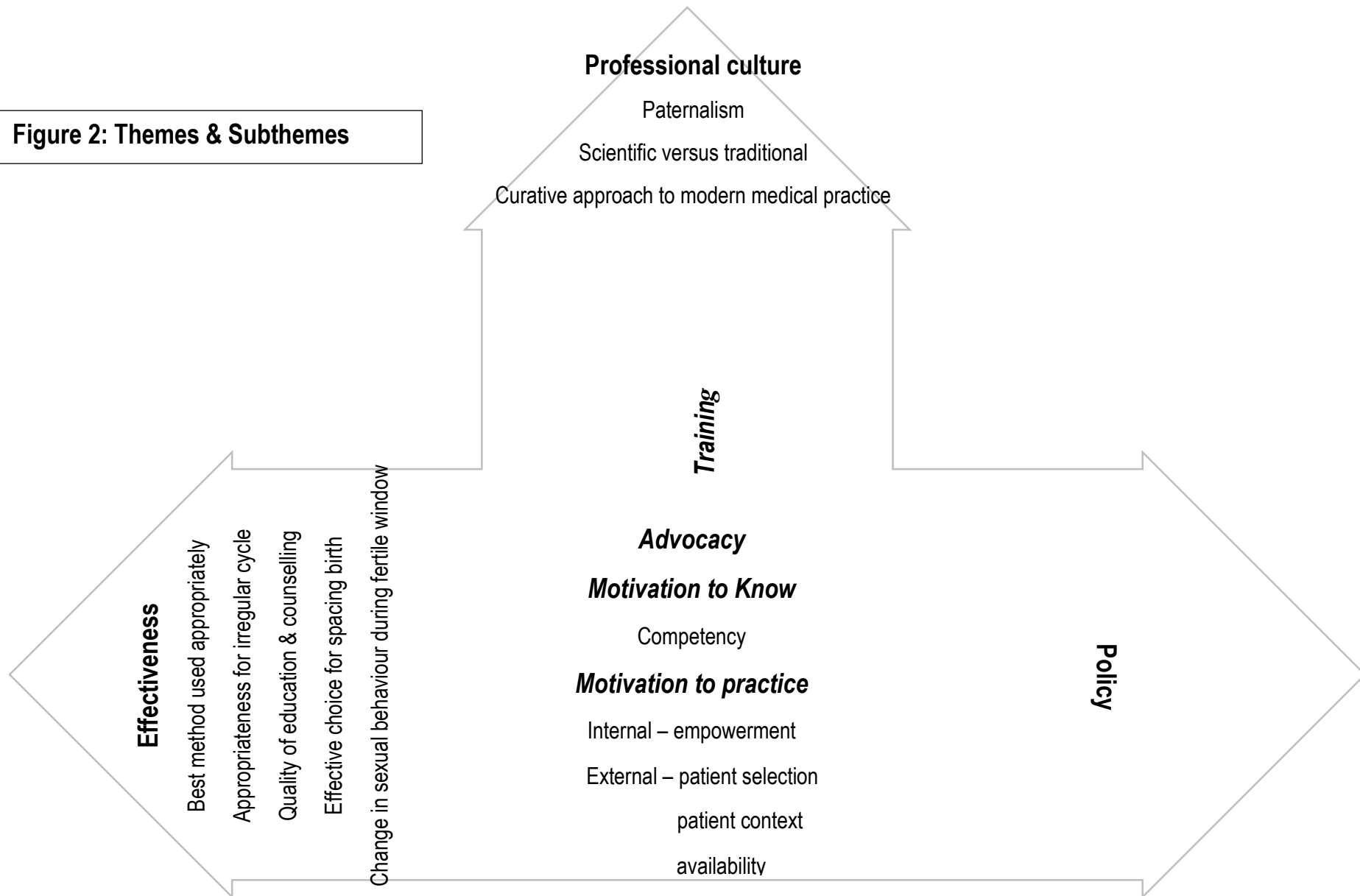
This final chapter aims to give a succinct review of important facts from literature review, findings and discussion. This responds to the research question which sought to understand the phenomenon of practice of NFP as part of reproductive care amongst clinicians in Ekurhuleni health district, Gauteng Province. In terms of interpretation of findings, themes were derived inductively from codes grounded in the data.

6. 2 CONCLUSION

This study aimed to understand lived experiences of clinicians practicing in Ekurhuleni health district which could have facilitating or obstructing influences toward NFP, a scientifically recognized method for reproductive health care. The participants have been drawn from diverse cultural background, educational setting and wide ranging years of professional experience, which has contributed to the richness of the descriptions. Being male or female did not seem to have much relevance to the lived experience although this was not specifically investigated. Figure 2 below, summarizes the key themes and sub-themes that have emerged from this study.

Figure 2: Summary: Themes & Sub-themes

Figure 2: Themes & Subthemes



Clinicians had little knowledge or misconstrued information on NFP, its effectiveness, complexity and suitability for patients due to lack of content and in-depth teaching of NFP at medical and nursing colleges, as well as a negative focus when presented. Professional culture, as expressed by participants, has a significant influence on practice. Introduction of NFP not only as policy but advocacy from national government, would determine its inclusion as an essential part of medical and nursing curricula, practice at coal face, and promotion of public health awareness.

Early education of male and female children on all family planning methods and fertility awareness has been shown to reduce age of sexual debut, frequency of sexual activity in sexually active teens, and pregnancy rate as well as greater appreciation of abstinence in this population. In the dawn of re-vamping health care system in South Africa, NCCG was developed and adopted in order to align clinical practice with internationally recognized and available evidence based information. This did not come to fruition with regards to implementation of NFP.

Policy, professional culture and effectiveness were core themes that have prevailing influences over clinician's perceptions of NFP. The described interrelatedness is an interesting and original phenomenon within the particular context of this study and which differs in some aspects with similar studies done in developed countries. The strong hinge intertwining them being training, knowledge, and competence. This has been repeated in other findings and it brings out again the need for a nursing and medical curricula that holistically prepares professionals to provide health care services which would sustain a healthy development of the whole person - health understood as physical, mental, spiritual, ethical and socio-cultural dimensions.

6.3 RECOMMENDATIONS

6.3.1 Primary Prevention: Introduction of FABM program at schools

Evidence has shown that early education of both male and female children prepares them to be responsive adults and reduces risky sexual behaviours resulting in delay in onset of sexual debut, decrease in sexual activity of sexually active teens, reduction in rate of teenage pregnancy and improvement in teen's attitude towards abstinence. Further, NFP promotes mutual responsibility in fertility care. The department of education should consider its introduction in their life orientation program although this would entail prior training of trainers.

6.3.2 Advocacy

6.3.2.1 Consistency between policy and practice

Studies have shown that NFP has a robust scientific foundation and its effectiveness compares with contraceptive methods. South African NCCG has adopted this evidence as part of re-engineering primary health care services. What may be lacking is political willingness, trained and experienced professionals to champion its implementation. The country's present policies around HIV, acquired immunodeficiency syndrome and tuberculosis are not deterrents because there are select group of patients who would benefit from NFP.

6.3.2.2 Use of media

Media should be appropriately used to send out holistic, balanced educative information regarding reproductive health for the public. This would increase awareness and more patients would opt for it.

6.3.3 Training

6.3.3.1 Critical appraisal of medical and nursing curricula

NFP has multiple benefits that favours healthy reproductive, emotional and psychic health of the woman as well as relational aspects of the sexuality of men and women. Patient-centred care, which emphasizes partnership between patient and health care professionals, has been adopted globally as model of care that improves quality of health care services but there is a gap in its implementation in the setting of this study and the country as a whole. Health professional council of South Africa should critically review medical and nursing curricula in order to ensure that outcome of training addresses health needs of the population it serves.

6.3.3.2 Respect for patient autonomy

Respect for patient autonomy is one of the fundamental ethical principles in health care as well as professional conduct patients expect from clinicians. This should form an aspect of the framework of medical and nursing training and practice. Role modelling by senior and experienced clinicians would inform transformation of negative aspects of professional culture.

6.3.3.2 Continuous Medical and Nursing Education

Effective use of NFP methods require training by accredited teachers, most of whom are not clinicians. Nurses and doctors are encouraged to go through a formal course for accreditation in their areas of practice. This training could either be institutionally organized programs or personally sourced. This course could be done online, an example is the BOM.

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APPENDIX I

PERMISSION FROM UNIVERSITY OF NAVARRE, PAMPLONA, SPAIN



Universidad
de Navarra

Instituto de Ciencias para la Familia

Comité de ética

TITLE	Understanding the perception of clinicians regarding Natural Family Planning as an option in reproductive health care
INVESTIGATOR	Person: Dr O J Ibeziako Phone: 011 999 2165 Cell: 072 639 8080 Fax: 086 208 1411 E-Mail: ojibeziako@gmail.com
DEPARTMENT	Instituto de Ciencias para la Familia, Universidad de Navarra, Pamplona, Spain
STUDY DEGREE	Master in Marriage and Family
SUPERVISOR	Prof Tania Erasti Alcalá
SPONSOR	None
CONTACT	71 Murray Street, Brooklyn, Pretoria, Gauteng Province. South Africa

The Institute of Family Sciences Research Ethics Committee, University of Navarra has considered this Protocol on 02/11/2017 and approval herewith given pending authorization from the respective ethics committee within Gauteng Department of Health, South Africa. She could then proceed with relevant data collection



Universidad
de Navarra
Instituto de Ciencias
para la familia

D. JAVIER ESCRIVÁ IVARS,

Director, Institute of Family Sciences, University of Navarra Pamplona, Spain.

02/11/2017

APPENDIX II

APPROVAL FROM ETHICS COMMITTEE EKURHULENI HEALTH DISTRICT

EKURHULENI ETHICS AND RESEARCH CLEARANCE CERTIFICATE

Research Project Title: Understanding the Perception of clinicians regarding Natural Family Planning as an option in reproductive health care.

NHRD No: GP201711_009

Research Project Number: 23/11/2017-8

Name of Researcher(s): Dr OJ Ibeziako

Division/Institution/Company: Instituto de Ciencias para la Familia, Universidad de Navarra, Pámplona, Spain.

DECISION TAKEN BY THE EKURHULENI HEALTH DISTRICT ETHICS & RESEARCH COMMITTEE (EHDERC)

- THIS DOCUMENT CERTIFIES THAT THE ABOVE RESEARCH PROJECT HAS BEEN FULLY APPROVED BY THE EHDERC. THE RESEARCHER(S) MAY THEREFORE COMMENCE WITH THE INTENDED RESEARCH PROJECT.
- NOTE THAT THE RESEARCHER WILL BE EXPECTED TO PRESENT THE RESEARCH FINDINGS OF THE PROPOSED RESEARCH PROJECT AT THE ANNUAL EKURHULENI RESEARCH CONFERENCE.
- THE RESEARCH COMMITTEE WISHES THE RESEARCHER(S) THE BEST OF SUCCESS.

Dr J. Sepuya
DEPUTY CHAIRPERSON: EKURHULENI METROPOLITAN MUNICIPALITY
Dated: 05/12/2017.

Dr R. Kelleman
CHAIRPERSON: GAUTENG DEPARTMENT OF HEALTH (EKURHULENI REGION)
Dated: 05/12/2017.

APPENDIX III

INFORMATION LEAFLET

Dear Participant,

I invite you to participate in this research study being carried out as part of fulfilment for completion of Master Degree in Marriage and Family, at the University of Navarre, Pamplona, Spain. This information leaflet would help you decide if you would like to take part in this research. Before you agree to take part, you should fully understand what is involved. If you have any question/s that this leaflet does not fully explain, please do not hesitate to ask the researcher, Dr O.J. Ibeziako.

The aim of this study is to understand the facilitators that enable or the barriers that prevent clinicians from advocating use of natural family planning as an option in child spacing, achieving or postponing pregnancy during counselling sessions on choice of family planning methods. It is a qualitative study which entails individual interview with leading open ended questions over 30 minutes duration. The interview would be recorded using a tape recorder and field notes would be made by the researcher as well. The interview would take place at your facility and at an agreed upon time of your convenience.

Although you may not benefit directly from this study, the results of the study would be a rich source of information which would contribute to further research on female reproductive health care. Further, the results would be shared with academic institutions who have undergraduate as well as postgraduate medical training programs.

Your participation in this study is entirely voluntary. This research does not in any way involve assessment of your clinical performance at the work place but an additional source of information that could enrich future medical and nursing training programs. You could refuse to participate or stop at any time in the course of this study without giving any reason. Your withdrawal would not affect you in any way. You are also not obliged to share views you might find constraining during the course of the interview. In case you foresee intimidation due to relationship with the researcher, a substitute investigator would be provided.

The study protocol has been approved by both University of Navarre, Pamplona, Spain as well as Ekurhuleni Health District ethics committee. A copy of the approval letter would be available if you wish to peruse through it.

The contact person for this study is Dr O.J. Ibeziako. If you have any questions about the study please contact her on cell number 072 639 8080. The name of her supervisor is Dr Tania Erasti, an Obstetrician and Gynecologist based at University of Navarre, Pamplona, Spain. Arrangements would be made anytime you wish to communicate with her.

Since your participation is voluntary, no compensation would be given for your participation. All information provided by you would be kept strictly confidential. Your personal identification would not be required during the course of the interview and data analysis. The recorded information would be deleted when transcribing, data analysis and research write up have been completed. Besides, it would be stored away under lock and key in a cupboard accessible to the researcher only.

APPENDIX IV

CONSENT TO PARTICIPATE IN THIS STUDY

I confirm that the person asking my consent to take part in this study has told me about nature, process, risks, discomforts and benefits of the study. I have also received, read and understood the above written information regarding the study. I am aware that the results of the study, including personal details, will be anonymously processed into research reports. I am participating willingly. I have had time to ask questions and have no objection to participate in the study. I understand that there is no penalty should I wish to discontinue with the study and my withdrawal will not affect me in any way.

I have received a signed copy of this informed consent agreement.

Participant's name(Please print)

Participant's signature: Date.....

Investigator's name: DR O.J IBEZIAKO (Please print)

Investigator's signature Date.....

.

APPENDIX V

QUESTIONNAIRE FOR INDIVIDUAL INTERVIEW

A. Demographic details of Participants

1. Age
2. Sex
3. Marital status
4. Country of origin
5. Undergraduate Qualification / University obtained
6. Highest Qualification / University obtained
7. Place of employment
8. Position
9. Number of years of experience post qualification

B. Questions & Probes were adopted and modified from Kelly PJ¹¹

Questions	Probes
Are you familiar with NFP OR Fertility Awareness methods OR periodic abstinence methods? Could you describe NFP?	Which methods do you know about? Do you know which of these NFP methods is modern? Did you have a formal training during your years of study at the medical or nursing school? If yes, how much time was dedicated to teaching it? Have you done any formal course on any natural family planning method? Do you think many doctors or nurses know about NFP?

	<p>What would you think could be the cause of lack of knowledge of NFP?</p> <p>Do you know if NFP is part of National Contraception Guideline?</p>
What do you believe are the advantages of NFP?	<p>Do you think NFP is an effective option for achieving pregnancy?</p> <p>Do you think NFP is an effective option for avoiding pregnancy?</p> <p>Do you think NFP is an option for spacing birth?</p>
What do you believe are the disadvantages of NFP?	<p>Why?</p> <p>Partner issues?</p>
Do you recommend NFP as an option for patients who would like to avoid pregnancy?	<p>What could be your barriers in offering this option to your patients?</p> <p>What facilitates offering this option to patients?</p>
What do you think are some pros and cons about discussing NFP with patients?	<p>Are there similar pros and cons about discussing artificial methods?</p> <p>What do you think are some pros and cons about incorporating NFP in preconception counselling/pregnancy planning?</p>
What referral sources are available in your community for patients wishing to use NFP?	<p>Do women ask for NFP?</p> <p>What do you do if someone asks for more information about NFP?</p> <p>What is your clinic's general process for reproductive health referrals?</p> <p>How does the availability of resources affect your counselling?</p>
What factors make it easy to offer NFP to patients?	How is this different from artificial methods?
What factors make it difficult to offer NFP to patients?	How is this different from artificial methods?
Do you know about effectiveness of NFP methods?	<p>Do you think NFP is an effective method for avoiding pregnancy?</p> <p>Do you know any way of classifying effectiveness (typical use effectiveness and perfect use effectiveness) of NFP methods?</p>

	Do you know any way of classifying contraceptive methods (typical use effectiveness and perfect use effectiveness)?
Do you teach the undergraduate students this method?	What could be the reason?
Do you teach postgraduate students this method?	What could be the reason?
Do you teach nurses this method?	What could be the reason?
Do you think your clinical experiences influences your practice of NFP	
Do you think that NFP methods should be included in the medical / nursing curriculum?	
Do you think your religious believes influence your practice of NFP	